



Calhoun: The NPS Institutional Archive
DSpace Repository

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

1991-12

"Best value" contracting in the procurement
of engineering and technical services.

Byrns, Herbert F.

Monterey, California. Naval Postgraduate School

<http://hdl.handle.net/10945/30945>

Downloaded from NPS Archive: Calhoun



<http://www.nps.edu/library>

Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

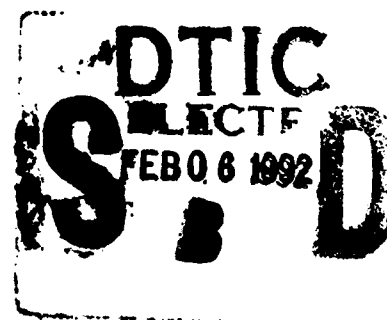
Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

AD-A245 524



2

NAVAL POSTGRADUATE SCHOOL
Monterey, California



THESIS

"Best Value" Contracting in the Procurement of
Engineering and Technical Services

by

Herbert F. Byrns

December 1991

Thesis Advisor

Rodney F. Matsushima

Approved for public release; distribution is unlimited.

92-03126



Unclassified

Security Classification of this page

REPORT DOCUMENTATION PAGE

1a Report Security Classification Unclassified			1b Restrictive Markings		
2a Security Classification Authority			3 Distribution Availability of Report		
2b Declassification/Downgrading Schedule			Approved for public release; distribution is unlimited.		
4 Performing Organization Report Number(s)			5 Monitoring Organization Report Number(s)		
6a Name of Performing Organization Naval Postgraduate School		6b Office Symbol (If Applicable) 036	7a Name of Monitoring Organization Naval Postgraduate School		
6c Address (city, state, and ZIP code) Monterey, CA 93943-5000			7b Address (city, state, and ZIP code) Monterey, CA 93943-5000		
8a Name of Funding/Sponsoring Organization		8b Office Symbol (If Applicable)	9 Procurement Instrument Identification Number		
8c Address (city, state, and ZIP code)			10 Source of Funding Numbers		
			Program Element Number	Project No	Task No
			Work Unit Accession No		
11 Title (Include Security Classification) "Best Value" Contracting in the Procurement of Engineering and Technical Services					
12 Personal Author(s) Byrns, Herbert F.					
13a Type of Report Master's Thesis		13b Time Covered From To		14 Date of Report (year, month, day) 1991 December	
15 Page Count 119					
16 Supplementary Notation The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.					
17 Cosati Codes			18 Subject Terms (continue on reverse if necessary and identify by block number)		
Field	Group	Subgroup	Best Value, Source Selection for Engineering and Technical Services		
19 Abstract (continue on reverse if necessary and identify by block number)					
The purpose of this research is to define and discuss the "best value" concept and how it relates to the procurement of engineering and technical services. The research was conducted by a review of regulations and policy guidance, interviews with Government and defense industry personnel, and visits to Navy Contracting Activities that procure engineering and technical services. The intent of the study was to analyze how the "best value" concept is currently implemented, problems with implementation, and to offer recommendations to improve "best value" source selection. This study also recommends areas for future study that may further improve the use of "best value" in the procurement of professional services.					
20 Distribution/Availability of Abstract			21 Abstract Security Classification		
☒ unclassified/unlimited ☐ same as report ☐ DTIC users			Unclassified		
22a Name of Responsible Individual Rodney F. Matsushima			22b Telephone (Include Area code) (408) 646-2052		22c Office Symbol AS/MY

DD FORM 1473, 84 MAR

83 APR edition may be used until exhausted

All other editions are obsolete

security classification of this page

Unclassified

Approved for public release; distribution is unlimited.

"Best Value" Contracting in the Procurement of
Engineering and Technical Services

by

Herbert F. Byrns
Lieutenant, United States Navy
B.A., Ohio State University, 1981

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
December 1991

Author:


Herbert F. Byrns

Approved by:


Rodney E. Matsushima, Thesis Advisor


David V. Lamm, Second Reader


David R. Whipple, Chairman
Department of Administrative Sciences

ABSTRACT

The purpose of this research is to define and discuss the "best value" concept and how it relates to the procurement of engineering and technical services. The research was conducted by a review of regulations and policy guidance, interviews with Government and defense industry personnel, and visits to Navy Contracting Activities that procure engineering and technical services. The intent of the study was to analyze how the "best value" concept is currently implemented, problems with implementation, and to offer recommendations to improve best value procurements of engineering and technical services. This study also recommends areas for future study that may further improve the use of "best value" procurements for professional services.



Accession For	
NTIS GRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

TABLE OF CONTENTS

I.	INTRODUCTION	1
A.	AREA OF RESEARCH.....	1
B.	RESEARCH QUESTIONS.....	2
C.	OBJECTIVE.....	2
D.	SCOPE OF THESIS.....	3
E.	METHODOLOGY.....	3
F.	ORGANIZATION	3
II.	BACKGROUND	5
A.	INTRODUCTION.....	5
B.	"BEST VALUE" DEFINED	5
C.	FAR AND DFARS GUIDANCE ON "BEST VALUE"	8
D.	WHEN IS "BEST VALUE" UTILIZED?.....	9
E.	WHAT ARE ENGINEERING AND TECHNICAL SERVICES AND WHEN ARE THEY USED?.....	11
F.	DESCRIPTION OF "BEST VALUE" SOURCE SELECTION FOR ENGINEERING AND TECHNICAL SERVICES.....	14
G.	SUMMARY	27
III.	"BEST VALUE" SURVEY QUESTIONNAIRE.....	28
A.	INTRODUCTION.....	28
B.	GOVERNMENT QUESTIONNAIRE.....	29
C.	CONTRACTOR QUESTIONNAIRE.....	46
D.	SUMMARY	51
IV.	PROBLEM DEFINITION AND ANALYSIS.....	52

A. INTRODUCTION.....	52
B. PROBLEM #1: EVALUATION CRITERIA	52
C. PROBLEM #2: THE TECHNICAL EVALUATION.....	65
D. PROBLEM #3: CONTRACTOR GAMING ON COST AND TECHNICAL PROPOSALS.....	70
E. PROBLEM #4: CONTRACTOR DISTRUST.....	79
F. CHAPTER SUMMARY	83
V. CONCLUSIONS AND RECOMMENDATIONS	84
A. INTRODUCTION.....	84
B. CONCLUSIONS.....	84
C. RECOMMENDATIONS	88
D. ANSWERS TO RESEARCH QUESTIONS	92
E. RECOMMENDATIONS FOR FURTHER RESEARCH	96
APPENDIX A: ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ACQUISITION) MEMORANDUM OF 22 MARCH 1991 DESCRIBING NAVY "BEST VALUE" CONTRACTING POLICY	97
APPENDIX B: LIST OF INTERVIEWEES.....	98
APPENDIX C: SURVEY QUESTIONNAIRE.....	102
APPENDIX D: CONTRACTOR EVALUATION QUESTIONNAIRE.....	103
APPENDIX E: NSC PUGET SOUND TECHNICAL EVALUATOR TEST.....	105
APPENDIX F: COST COMPARISON MATRIX.....	107
LIST OF REFERENCES	108
BIBLIOGRAPHY	110
DISTRIBUTION LIST	111

I. INTRODUCTION

A. AREA OF RESEARCH

Achieving the "best value" contract is increasingly mentioned as an objective of Government procurement largely due to the many stories of poor performance attributed to contractors selected based on the low bid. As such, the "best value" concept is receiving much attention regarding its definition and implementation in source selection. Achieving the "best value" is based on reviewing all factors including price before making a procurement decision. The result should be the most advantageous procurement for the Government.

Consumers utilize the "best value" concept on a daily basis when making value judgment tradeoffs between price and quality. Many consumers prefer higher quality over price while others prefer a lower price over quality. Depending on the consumer, either decision could equate to a "best value" judgment. The goal of "best value" in Government procurement is in determining the optimum tradeoff between cost and quality representing the most advantageous procurement decision.

"Best value" has applications extending to every competitively awarded contract for goods and services procured by the Department of Defense (DoD) and is not without its problems. In a system erected on the foundation of full and open competition, not awarding a contract to an offeror who is technically responsible and offering the lowest price could cause considerable protest, especially in the area of services which are traditionally more difficult to quantify. "Best value" issues revolve around areas including; proper acquisition planning for a "best value" procurement, the validity of technical and cost realism evaluations, and how to equate superiority of one contractor's technical approach with the lower bid of another contractor. From a contractor's standpoint, with a

decreasing number of contracts available, there exists a high level of distrust in the "best value" source selection process. Many contractors believe that, no matter what the Government says, the competition is based on low bid. This thesis research will examine the "best value" concept in source selection for engineering and technical services contracts. The objective is to analyze the current use of the "best value" concept and make recommendations for improvement of the process.

This research was accomplished through personal and telephone interviews with Government and defense contractor personnel. In addition to the interviews, examples of procurement documentation were collected and analyzed.

B. RESEARCH QUESTIONS

1. Primary Research Question

What is the most efficient and effective method of implementing "best value" in source selection for engineering and technical services contracts?

2. Subsidiary Research Questions

1. What is "best value"?
2. Under what circumstances is "best value" employed?
3. What are the "best value" source selection techniques for engineering and technical services?
4. What factors and subfactors are utilized in "best value" source selections for engineering and technical service contracts?
5. What are the problems or impediments to implementing "best value" source selection for engineering and technical services?
6. How do contracting activities quantify paying a premium on "best value" procurements?

C. OBJECTIVE

The objective of this research is to examine the intricacies and problems associated with the use of the "best value" concept in source selection. By doing so, qualitative insight will be provided to procurement personnel and engineering support services contractors.

D. SCOPE OF THESIS

The scope of this thesis revolved around the acquisition planning and evaluation phases of the contracting cycle for engineering and technical services contracts. Contract administration is only briefly mentioned in the context of viewpoints collected during research on a specific problem; contractor gaming, which is discussed in Chapter IV. The research focused on Navy contracting activities although other DoD agencies and the National Aeronautics and Space Administration (NASA) were contacted for their positions in several areas. By contacting other agencies, the researcher was able to compare problems and solutions to the "best value" approach. Similarities between systems commands and field activities were expected.

E. METHODOLOGY

The methodology used in this study consisted of a comprehensive literature review, personal, and telephone interviews, and onsite visits to contracting activities. This methodology was necessary because the "best value" concept is somewhat nebulous, and as a result, interpersonal communications were required. A sample of eight to ten engineering services contracts was reviewed in the study. Government acquisition personnel, defense contractors, and requiring activities were targeted as the sources of information for the study.

F. ORGANIZATION

Chapter I defined the research issue and its importance. The objective, scope, and methodology of the thesis were also presented.

Chapter II examines a definition of the "best value" concept presented in the literature and discusses when "best value" should be utilized. In addition, the chapter defines engineering and technical services and "best value" source selection methods used to obtain these services.

Chapter III examines responses received from a survey of Government and contractor personnel. In addition, data obtained from a sample of engineering and technical services contracts is presented.

Chapter IV presents an analysis of problems collected from the interviews with Government and contractor personnel.

Chapter V provides conclusions and recommendations germane to the research conducted. Additionally, the research questions are answered and areas for further research are presented.

II. BACKGROUND

A. INTRODUCTION

This chapter will define the "best value" concept and discuss when "best value" is utilized. This chapter also introduces a definition of engineering and technical services, and a discussion of "best value" source selection methods used to procure engineering and technical services.

B. "BEST VALUE" DEFINED

Examples of definitions for "best value" from a literature search are presented below.

In a report on expanding the use of commercial components in military equipment, the Defense Science Board offered the following definition:

"Best value"—the evaluation of a (commercial) product, system or service based on all reasonable factors including but not limited to initial price, life cycle costs, available extended warranties, prior product experience, availability of distribution and service channels, past producer performance, past vendor performance and so forth, for the purpose of procuring a product, system or service that provides optimum satisfaction of the mission needs. [Ref. 1:p. 81]

The Naval Supply Systems Command offers a similar definition by describing "best value" as a process which, "Describes all those acquisitions where selection for award is to be based on other than the lowest evaluated price or lowest cost/price among technically acceptable offers." [Ref. 2:p. A-4]

The Naval Air Systems Command (NAVAIR) is more succinct with its definition of "best value" which encompasses not only the process of proposal evaluation on factors other than price, but also incorporates the definition of the requirement as well. In a 1990 Business Strategy Presentation, NAVAIR defined "best value" as "obtaining the right product at the right price, and not making an acquisition decision on price alone."

The Defense Logistic Agency (DLA), in a handbook for contracting officers, DLA Handbook 4105.3 [Ref. 3], is more expansive in its definition of "best value". It considers the usage of value judgments for all methods of source selection. These value judgments are employed as methods of achieving the most advantageous procurement decision. For instance, in a source selection based on low price, the contracting officer should consider additional costs to the Government of quality deficiency reports and delinquency on past contracts incurred by the offeror being evaluated. These added costs should be factored in as expected costs prior to making an award decision. Buying the "best value" in this context refers to awarding a contract on the low overall cost instead of low initial price. DLAH 4105.3 recommends techniques to obtain the objective of "best value" for various methods of source selection including formal source selection, streamlined source selection, responsibility determinations, quality vendors, and multi-source contracting.

The Defense Personnel Support Center (DPSC) in a handbook on source selection, DPSC Handbook 4105.8, describes "best value" as a source selection technique which equates to a streamlined version of formal source selection. "Best value" source selection in this context, is utilized for less complex procurements with dollar values under \$1 million [Ref. 4:p. 7].

The Defense Analysis and Studies Office also viewed "best value" as a variation on source selection when it reported:

One variation on source selection, "Best Value" Source Selection (BVSS), includes the same elements used in the usual source selection process. It is streamlined, however, by lowering the approval signature levels and by simplifying some of the procedures. BVSS also places emphasis on contractor past performance in both quality and on time delivery. [Ref. 5:p. 5]

The Air Force, Army, and NASA utilize source selection methods based on factors other than price alone, yet the term "best value", "best buy" or "greatest value" could not be located in their source selection literature. General references allude to source selection

methods which "allow an award to be based on factors other than price" [Ref. 6:p. 2] and "selecting the source whose proposal presents the highest probability of quality performance to best meet NASA's requirements at a realistic cost/price" [Ref. 7:p. i]. However, none mention "best value" as a specific type of procurement process. References to "best value", greatest value, and greatest overall benefit to the Government are made in sample Request For Proposals (RFP)s from all DoD agencies, further indicating that all agencies mentioned do have an appreciation for the concept.

For purposes of this research, a working definition for "best value" is presented in terms of an objective and a process. As an objective, "best value" represents the most advantageous procurement decision available to the Government. This decision is based on low price, low overall cost or other factors. "Best value" defined as an objective has extremely broad applications. One can obtain the "best value" under any source selection method as long as the product or service meets the criterion of providing optimum satisfaction of mission needs.

"Best value" is also defined in terms of an evaluation process where all relevant factors are taken into account prior to making a procurement decision. The end result of this evaluation process represents the most advantageous procurement decision. In this context, procurement decisions are not based on price alone.

As an evaluation process, "best value" directly contrasts with technically acceptable low offeror evaluations which make contract awards based on the low price among technically acceptable offerors. "Best value" emphasizes other factors in addition to price and establishes different levels of technical merit from which to make the most advantageous procurement decision.

C. FAR AND DFARS GUIDANCE ON "BEST VALUE"

A review of the FAR and DFARS for the term "best (greatest) value" uncovers very few specifics, although factors that imply the use of the "best value" concept of making the most advantageous procurement decision based on price and other factors are implicit throughout.

The only section of FAR within which the "best value" concept is specifically referred to is in the source selection subpart 15.605, which states:

Where the lowest price or lowest cost to the Government is properly the deciding factor in many source selections, in certain acquisitions, the Government may select the source whose proposal offers the greatest value to the Government in terms of performance and other factors. [Ref. 8:p. 15-20]

The FAR continues its reference to "best value" as follows:

In awarding a cost reimbursement contract, the cost proposal should not be controlling since advance estimates of costs may not be valid indicators of actual costs. The primary consideration should be, which offeror can perform the contract in a manner most advantageous to the Government as determined by evaluation of proposals according to the established evaluation criteria. [Ref. 8:p. 15-20]

A recent change to the DFARS, published in the Federal Register, Vol. 56, No. 172, page 43986, on September 5, 1991, is more explicit with regard to "best value" in the area of services. The change is a result of Section 834 of the 1991 National Defense Authorization Act which requires DoD, to the maximum extent possible, to acquire services on the basis of tasks performed rather than on the basis of number of hours the service is to be provided. DFARS section 215.605 is amended to read as follows:

215.605 Evaluation Factors

(C) In Competitive acquisitions of services—

- (1) Evaluation and award should be based to the maximum extent practicable, on best overall value to the Government in terms of quality and other factors.**
- (2) The weighting of costs must be commensurate with the nature of the services provided**

The change continues by delineating when it might be appropriate to use low price technically acceptable offeror, and when it might be more appropriate to award to an offeror based on technical and quality considerations at other than the lowest price. The DFARS change also adds section 237.170 which provides guidance and prescribes a new solicitation provision and contract clause on uncompensated overtime.

D. WHEN IS "BEST VALUE" UTILIZED?

The use of "best value" is generally reserved for the procurement of complex goods or services where alternate approaches for solving a requirement are available. This is due to the often times subjective nature of a "best value" procurement where evaluation factors and criteria within those factors are utilized to discriminate between solutions offered by competing proposals. As a result, requirements necessitating the use of performance specifications or complex services are typically considered for "best value" evaluations. Conversely, products with detailed specifications and routine services are generally acquired based on low cost.

In a memorandum to program executive officers, direct reporting program managers, commanders of system commands, and others, the Assistant Secretary of the Navy for Research, Development and Acquisition, the Honorable Gerald Cann described using "best value" as follows:

"Best Value" evaluations should be employed whenever possible and especially in weapons system, federal information processing and professional and technical service support acquisitions. Requirements which dictate complex integration of people, equipment, hardware, innovation and software should also be evaluated on a "best value" basis. However, when non-complex, routine requirements are being procured and the product to be delivered is clearly defined at the outset of the procurement, it may be appropriate to award to the lowest priced, technically acceptable offeror. [Ref. 9, Appendix A]

Due to the non-definitive nature of "best value" procurements, contract type selection is normally cost reimbursement. This is not to say that fixed price arrangements are not used for "best value" procurements. However,

Great care is required in the application of greatest (best) value to fixed price efforts since the application of evaluation factors to distinguish between offers for an item which has an adequately detailed specification may involve applying responsibility factors rather than technical acceptability factors. [Ref. 2:p. A-4]

The point is that the contracting activity cannot eliminate an offeror, especially a small business for responsibility type issues through the use of evaluation factors. The responsibility determination is made after the "best value" offeror is selected.

Comptroller General decision B-238953.4 of 28 September 1990, in the matter of Flight International Group, Inc. (FLIGHT), may be instructive concerning the issue of responsibility determination in lieu of "best value" evaluations. In this case, the Navy used a responsibility factor to eliminate a small business under the guise of a "best value" evaluation.

FLIGHT challenged the Navy's evaluation of its proposal because the financial condition of the company was not stated as an evaluation factor in the solicitation. The solicitation requested proposals for a firm fixed price contract to provide flight training services for Naval Flight Officers for one base year and four option years. The solicitation provided for an award to the offeror whose proposal presented the "best value" to the Government on the basis of three factors; technical approach, and price, which were weighted equally, and management, which was considerably less important. During proposal evaluation, it was learned through a newspaper article that FLIGHT, a small business, was having financial difficulties and was "considering options to meet liquidity problems." The contracting officer contacted the cognizant Defense Contract Administration Services Management Area (DCASMA) which recommended against the award. The contracting officer then failed to contact the Small Business Administration for

a required certificate of competency determination for FLIGHT. This was due to the pressure of a time constraint to award the contract. The result was an evaluation of FLIGHT's proposal:

On the basis of inadequate financial capacity but under the guise of a comparative "best value" evaluation (which) effectively constituted a finding of nonresponsibility which the Agency was required to refer to the Small Business Administration. [Ref. 10:p. 2]

The protest by FLIGHT was sustained. The Navy was ordered to terminate the current contract for convenience and award the contract to FLIGHT. In the FLIGHT case, the Navy employed a responsibility type factor to eliminate a small business in lieu of a certificate of competency determination from the Small Business Administration.

E. WHAT ARE ENGINEERING AND TECHNICAL SERVICES AND WHEN ARE THEY USED?

Service contracting characteristics and governing regulations are described in FAR part 37 which defines a service contract in subpart 37.101 as:

A contract that directly engages the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than furnish an end item of supply. A service contract may be a non-personal or personal contract. It can also cover services performed by either professional or non-professional personnel whether on an individual or organizational basis. [Ref. 8:p. 37-1]

The DoD awards service contracts for efforts encompassing routine, recurring type services to sophisticated research and design efforts.

As delineated in the FAR, part 37, engineering and technical services are one type of Contracted Advisory and Assistance Services (CAAS) which take the form of "Information, advice, opinions, alternatives, conclusions, recommendations, training or direct assistance" [Ref. 8:p. 37-3]. Besides engineering and technical services, other services covered under the CAAS genre include individual experts and consultants, studies, analyses and evaluations, and management and professional support services.

Contractor engineering and technical services are defined in DFARS 237.701 as:

The furnishing of advice, instruction, and training to DoD personnel, by commercial or industrial companies in the installation, operation, and maintenance of DoD weapons, equipment and systems. This includes transmitting the knowledge necessary to develop among those DoD personnel the technical skill required for installing, maintaining and operating such equipment in a high state of military readiness. [Ref. 11:p. 237-6]

DFARS further separates engineering and technical services into three categories which include contract field services, contract plant services, and field service representatives.

1. Contracting for Services

Service contracting is differentiated from hardware procurement in that with services, the Government is acquiring expertise, knowledge, and time instead of an end item of supply. As a result, the process of acquiring services is somewhat different.

In acquiring services, the requiring activity must first make a determination that the services cannot be performed "in house"; meaning Government employees have neither the expertise nor the resources to perform the requirement. Once this determination is made, the requiring activity constructs a Performance Work Statement (PWS) in lieu of a specification for hardware requirements. The PWS is a document which describes the essential and technical requirements for the service and the standards used to determine whether the requirements are met. The PWS for engineering and technical service contracts requiring "best value" source selection is usually broad in scope providing the flexibility necessary to meet the needs of dynamic programs. This is in contrast to well defined PWSs for routine services and design specifications for hardware procurements.

Contracting for services employs a different set of evaluation criteria than contracting for hardware and other tangible items. Since technical expertise is of paramount importance with services, technical factors are heavily weighted. These include the contractor's technical approach to solving the requirement, the level of experience among key personnel and corporate experience in similar or past efforts.

Solicitations for engineering and technical service contracts will normally include an estimated ceiling covering the number of hours during a base year and subsequent option years, and the labor categories, or "labor mix," necessary to complete the tasks presented in the PWS. Categories in the labor mix are sometimes equated to an equivalent Government service rating, supplying the offeror with the minimum pay scale expected. These rates are then used as benchmarks to evaluate the cost realism of the offeror's proposal. The cost realism analysis is discussed further in the next section of this chapter.

Engineering and technical services are procured by field contracting activities, laboratories, weapon testing sites, training centers and systems commands. Examples of engineering and technical services encountered by this researcher include configuration management support, systems and software engineering support, services in support of weapons lethality assessment, and cruise missile technical support services among others.

Contracts for engineering and technical services usually consist of one base year with the option to continue services for up to four additional years. Therefore, if all options are exercised, the maximum length of a contract can extend to five years prior to resoliciting the requirement. The contracts can be omnibus in nature, covering many areas of support, or more specific, requiring support for only one area.

The typical contract types for engineering and technical services encountered by this researcher were 1) Cost Plus Fixed Fee (CPFF), 2) Time and Materials (T&M), 3) Indefinite Delivery Indefinite Quantity (IDIQ), and 4) Cost Plus Award Fee (CPAF). As an observation, activities used either the CPFF and CPAF or T&M and IDIQ. Only one of the activities encountered during this research used a mixture of Cost Plus and T&M type contracts.

F. DESCRIPTION OF "BEST VALUE" SOURCE SELECTION FOR ENGINEERING AND TECHNICAL SERVICES

As discussed in Section A, "best value" is generally defined in terms of a source selection evaluation process that is normally reserved for non-routine service requirements. "Best value" source selection employs evaluation factors to discriminate between offerors. The evaluation can be either formal or streamlined. Both techniques, as applied to engineering and technical services, are described below after a brief discussion of acquisition planning.

1. Acquisition Planning

A key in "best value" source selection is acquisition planning. Acquisition planning considers elements including a clear definition of the requirement, objectives of the procurement, and establishes the composition of the acquisition team. Each element is critical to the success of the procurement. The products of acquisition planning include a well defined PWS and a Source Selection Plan (SSP). Although not always required, and depending on the designation of the program or dollar value of the acquisition, the advanced planning required to effectively select a source dictates the need for a written acquisition plan.

A typical SSP consists of two parts. Part One will provide an overview of the acquisition strategy and describe the organization, membership, and responsibilities of the source selection team. Part Two identifies the evaluation criteria and the detailed procedures for proposal evaluation [Ref. 12:p. 16]. It is of utmost importance to thoroughly plan the evaluation criteria to be used in evaluating proposals. Developing the appropriate evaluation criteria is perhaps the most important aspect of acquisition planning and is considered to be the most difficult.

Part Two of the SSP also contains the procedures to be implemented for evaluating contractor proposals. The topics to be covered will depend on the size and complexity of

the acquisition, and may include; 1) the nature and scope of the evaluation, 2) preparation and training of the personnel involved, 3) evaluation committees, 4) scoping techniques, 5) risk assessment, 6) price or cost evaluation, and 7) documenting the evaluation. [Ref. 12:Appendix B]

Upon completion of the SSP, it is necessary to solicit proposals from industry. This action is initiated through the RFP. All sections of the RFP are important to the successful evaluation of proposals. However, Sections B, C, L, and M are especially vital. Sections B and C, "PWS/Specifications," contain the Government's requirement. It is essential to have a clear and concise definition of the requirement. Section L, "Instructions, Conditions, and Notices to Offerors or Quoters," is used to deliver instructions to offerors on how to prepare and deliver this proposal. Section M, "Evaluation Factors for Award," must contain the following information in accordance with FAR subpart 15.605 (E);

The solicitation shall clearly state the evaluation factors, including cost or price and any significant subfactors, that will be considered in making the source selection and their relative importance. Numerical weights, which may be employed in the evaluation of proposals, need not be disclosed in solicitations. The solicitation shall inform offerors of minimum requirements that apply to particular evaluation factors and significant subfactors. [Ref. 8:p. 15-20]

Additional steps can be taken to ensure the RFP is as complete as possible. These steps include the utilization of a draft RFP or presolicitation conference which allow industry the opportunity to carefully review the requirement and provide feedback on possible problem areas.

2. Formal Source Selection Method

The establishment of a specific evaluation and decision organization is what designates certain source selections as formal. The formal source selection method is a

time consuming and administratively expensive process generally reserved for major weapon systems and other complex requirements. It can also provide the greatest flexibility to DoD in selecting the most advantageous contractor proposal.

Responsibilities of the formal source selection organization from DLA Handbook 4105.3 are listed below:

1. The Source Selection Authority (SSA) is the individual responsible for making the final decision on recommendations from the Source Selection Advisory Council (SSAC) and the Source Selection Evaluation Board (SSEB). The SSA is normally a high ranking official in the organization possessing a broad perspective of the organization's mission and is in the best position to make a decision based on the agency and its requirements.
2. The SSAC assists the SSA and SSEB in an advisory status. It reviews and approves factors and their weighting used in the source selection evaluation and appoints chairpersons and members of the SSEB.
3. The SSEB is responsible for the development of evaluation standards, evaluation of proposals in accordance with those standards and presentation of findings to the SSA and SSAC. The standards relate to technical and cost factors for each proposal. The purpose of the SSEB is an agreement on the strengths and weaknesses of each proposal against the SSP. These strengths and weaknesses are presented to the SSA as an individual proposals. Proposals are not compared by the SSEB.
4. The contracting officer is responsible for preparing the acquisition plan, preparing the solicitation, evaluating proposal costs to determine its reasonableness and making the award. The contracting officer is normally assigned as the chairperson of the SSEB cost section which evaluates proposal costs for reasonableness and realism. [Ref. 3:p. II-3]

a. Evaluation Factors

The process of formal source selection facilitates an agency's ability to make the most advantageous procurement decision through the use of evaluation factors. Evaluation factors are used to discriminate between offerors. A procuring agency has great latitude in determining which factors should be utilized. Three requirements on the selection of evaluation factors from DLA Handbook 4105.3 are:

1. The factor must be variable, i.e., there must be a reasonable expectation of variance between offerors.

2. The variance must be measurable. This does not mean it must be quantifiable; qualitative measures are equally valid.
3. The factor must be determinant. The Comptroller General has stated in several decisions that use of an area as an evaluation factor is valid only if the agency's needs warrant a comparative evaluation of those areas. The FAR reinforces this by stating that the evaluation factors will include only those factors that have an impact on the source selection decision. The simplest way to assess determinance is to ask yourself: "is the Government willing to pay more for higher merit in this factor?" [Ref. 3:p. II-5]

Typical factors utilized in the source selection process for engineering and technical services include technical, management and cost. In accordance with FAR part 15.605(b), cost or price and quality are mandatory evaluation factors in all procurements. Quality is normally considered in the context of all factors including the technical excellence, management capability or past performance of an offeror. Cost is listed in Section M as a separate evaluation factor.

In order to facilitate the evaluation process, factors are normally broken down into subfactors. An example of a technical factor broken down into subfactors from an RFP by the Naval Regional Contracting Center (NRCC), San Diego, Long Beach Detachment, is presented below:

Factor: Technical

Subfactors: a) Technical Approach
 b) Corporate Experience
 c) Personnel Qualifications
 d) Management Plan
 e) Quality Assurance Plan

Factors and subfactors are weighted in accordance with their relative importance. These weights are communicated to offerors via the solicitation. This can be accomplished by listing factors and significant subfactors in their relative order of importance, or by using adjective descriptions of the factor's importance, i.e., "Technical is more important than management. Technical and management factors combined are slightly more important than cost."

Factors are also designated as variable in relative importance. For instance, if the difference between two offerors is insignificant on the most important factor, the difference in lesser factors may become more important in the overall evaluation.

In evaluating factors and subfactors, the SSEB utilizes evaluation criteria such as 1) the soundness of the technical approach, 2) compliance with the requirements, 3) excellence of designs, and 4) demonstrated understanding of the requirement [Ref. 3:p. II-8]. Multiple assessment criteria can result in a matrix evaluation arrangement which can assist in visualizing the overall proposal evaluation.

b. Rating Systems

Rating descriptions of each factor could be based on point systems, adjective grades, colors, or a combination, depending on the agency and activity within the agency. For example, the Air Force is required by regulation to use colors as a rating system, whereas Navy activities contacted by this researcher have used points, adjectives, a composite system of points and adjectives, and colors. Each system, by its nature, has advantages and disadvantages. However, if used properly as a tool of the SSA, the results should be the selection of the "best value" offeror.

(1) *Point Systems.* Of all the rating systems available, point systems are the most precise. They are typically based on a 100 or 1000 point scale. Points are accumulated during proposal evaluation in the form of numerical scores, which allow the SSA to make total point comparisons between competing proposals. For example, one offeror may achieve a total score of 75 points on its proposal compared to a superior proposal which achieved a score of 85 points. Point systems do not allow the flexibility of adjective ratings and colors in making tradeoffs between evaluation factors. This is due to the precise grades given to proposals where the differences are sometimes difficult to equate with a precise numerical score.

(2) Composite Rating Systems. Composite rating systems consist of numerical scores attached to an adjectival or color descriptor. Composite systems utilize a numeric scale and assign an adjectival or color descriptor depending upon where the total points achieved by the proposal fall on the scale. For example, on a numeric scale of 0-100, any proposal achieving a numeric score between 90-100 total points will be assigned an adjectival descriptor of "outstanding" and a color descriptor of "blue". Composite rating systems eliminate the need to differentiate when proposals are only two or three points apart under a point system. However, there may be a considerable difference between proposals on the high and low ends of the adjectival grade of "outstanding".

(3) Adjectival and Color Systems. Employing strictly adjectival grades or colors as a rating system permits the SSA the most flexibility in making contract awards because it does not constrain the SSA to making awards based on high point scores associated with point and composite systems. In fact, using strictly adjectives or colors requires the SSA to focus more on concrete differences in proposals rather than relying on point scores. A disadvantage of adjectives and colors is the lack of preciseness sometimes desired by the technical codes evaluating an offeror's proposal. As an example of rating systems, consider Table 1:

Table 1

	Score	Scale	Adjective Rating	Color Rating
Offeror A	92	90-100	Outstanding	Blue
Offeror B	88	80-89	Excellent	Green

The difference between Offeror A and Offeror B equals only four points in numerical scores, yet equates to an adjectival rating difference between an "excellent" and "outstanding" offeror. If the numerical grades were 95 for Offeror A and 85 for Offeror B, the adjective rating is more descriptive.

The Naval Supply Systems Command (NAVSUP) prefers usage of the composite method but recognizes that:

A variety of (rating systems) methodologies have been advocated and successfully employed throughout the Navy Field Contracting System (NFCS) which offer different advantages and drawbacks. . .activities are authorized to employ the system which appears most advantageous to their needs. [Ref. 2: p. 11-12]

DLA also recognizes a variety of rating systems and stresses systems which:

. . .allow the SSA the maximum flexibility in making tradeoffs between evaluation factors. Numerical systems present the most problems in this area. [Ref. 3:p. 8-11]

Unlike NAVSUP and DLA, the Air Force mandates the use of a color coded rating system.

Use colors to indicate proposal ratings at the factor and subfactor level. At the area and item level, color codes shall also be used to depict the rating and will be accompanied by a consistent narrative assessment detailing the basis for the rating. [Ref. 6:p. 11]

Regardless of the rating description utilized during the source selection, it is the responsibility of the SSA to make the source selection decision based on the relative strengths and weaknesses of each proposal. Rating descriptions are a tool of the SSA. Two proposals evaluated as equal overall under a point system, adjectives, or colors may be considerably different upon examining the discriminators between the offerors. If two competing proposals are evaluated equal overall, one of the key points is to look back at the RFP and the SSP and determine which factor was considered most important. It may happen where one offeror has done very well on factors not considered the most important and overall, achieved an equal grade with the offeror who did well on the factor considered most important. This requires an investigation before awarding the contract and is why narrative comments from the technical evaluation board are crucial.

The bottom line in designing a rating system is to maximize useful information to the SSA without requiring an extensive review of each proposal by the SSA. This is achieved through a proper design and evaluation of factors by the SSEB and a presentation of each contractor's strengths and weaknesses to the SSA.

c. Cost Realism Analysis

The cost realism analysis is completed by the cost panel of the SSEB in conjunction with the technical panel. It is used in the evaluation of cost reimbursement type contracts even when adequate price competition exists. A cost realism analysis is generally not used when fixed price and time and materials type contracts are contemplated because prices are fixed and there is no opportunity for an upward adjustment in the cost proposal. However, like all contracting actions, fixed price and time and materials type contracts do require a reasonableness evaluation. As defined in the DFARS, Section 215.801, the cost realism analysis is:

A review of the cost position of an offeror's proposal to determine:

1. If the overall costs proposed are realistic for the work to be performed;
 2. If the costs reflect an offeror's understanding of the requirements of the proposed contractor;
 3. If the costs are consistent with the various elements of the technical proposal.
- [Ref. 11: p. 215-2]

For example, if an offeror neglects certain costs required to complete the technical requirements, it may indicate an incomplete or poor understanding of those technical requirements and an increased risk to the Government. A cost realism analysis is also conducted for use in the cost/technical tradeoff analysis if required prior to contract award. In this respect, the cost realism analysis evaluates the contractor's costs to determine their reliability. If the proposed costs are found to be inaccurate, the costs are adjusted. For example, if an offeror proposes unrealistically low labor rates in a Best and Final Offer

(BAFO) without justification, costs would be adjusted upward to reflect accurate costs in accordance with the cost realism assessment. The upward adjusted cost is used in conjunction with the technical evaluation in the overall proposal assessment.

d. Cost Factor

The cost factor for evaluation is weighted, although it is never scored in "best value" evaluations. Weighting costs means an assignment is made indicating the relative importance of cost in comparison to the technical proposal. For instance, technical and management factors combined may be slightly more important than cost. If translated to points, this may equate to a 60/40 split which means that out of 100 total points, 60 are attributed to technical and management factors, while 40 are accounted for in cost. Only a few NAVSUP activities were observed during this research to use a point breakdown of cost to technical factors. All other Navy activities, the Air Force, Army and NASA claimed to evaluate the cost factor by assigning a relative, not a numerically specific breakdown. Evaluating cost against other factors is thereby more flexible and less dependent on a mathematical formulation.

The scoring of the cost factor, which is not permitted by any DoD agency or NASA, is the assignment of points, adjective grades, or color ratings to the accuracy of costs in the proposal. The reason this practice is prohibited is because scoring can skew an evaluation toward a contractor with accurate costs but a marginal technical proposal. Even more significant, is the possibility of making a technically unacceptable proposal acceptable for award based on the accuracy of costs alone. For example, if an offeror's costs are determined to be accurate through a cost realism analysis, that offeror would receive additional points even though the technical proposal was marginal or unacceptable. The additional points for cost accuracy may make a marginal or unacceptable proposal eligible for contract award.

e. Competitive Range Determination

Upon completion of the initial evaluation phase and before discussions, a competitive range determination is made [Ref. 3:p. II-16]. This determination is made by the contracting officer with input by the technical panel. The determination is particularly important in a formal source selection where costs associated with proposal preparation and evaluation are great.

In determining the competitive range, a tradeoff between a broad competitive base and the opportunity of award requires consideration. In such a case, it is generally considered prudent to err in favor of a broader range. FAR subpart 15.609(a) states that "when there is doubt as to whether a proposal is in the competitive range, the proposal should be included." [Ref. 8:p. 15-22]

Competitive range determinations are made based on all factors in the solicitation and in the same manner a proposal is evaluated for contract award. Competitive ranges are established on the basis of comparative assessments of proposals in which an average proposal may be rejected based upon the outstanding merits of others. As previously noted, contracting officers must be careful not to eliminate small businesses based on responsibility factors when a certificate of competency determination is required. Instead, a comparative assessment based on the merits of other proposals should be employed when eliminating any proposal from the competitive range.

f. Discussions

The next stage of formal source selection is called discussions. Discussions are defined in the FAR part 15.601 to include:

...any written or oral communication between the Government and the offeror that involves information essential for determination of acceptability of a proposal or that provide the offeror to revise or modify its proposal. [Ref. 8:p. 15-19]

Apparent clerical mistakes may be corrected prior to the establishment of a competitive range and without entering into discussions where they qualify as clarifications.

There is a fine line between clarification and discussions, and as a result, all correspondence between the evaluation board and the offeror should be first directed through the contracting officer [Ref. 3:p. II-18]. If responses to clarification requests represent modifications or revisions to an offeror's proposal, those modifications or revisions should not be forwarded to the evaluation board since it may change the evaluation in favor of the offeror making the change. The changes could possibly add an offeror to the competitive range who was previously not considered susceptible for award. Clarifications for offerors already in the competitive range can be deferred until discussions have commenced.

Discussions are conducted by the contracting officer with technical evaluators present as requested. The idea is to clear up questions regarding the offeror's proposal and inform the offeror of deficient areas prior to BAFOs. Extreme care must be taken during discussions so as not to "technically level" the offerors by providing solutions to deficiencies in the proposals noted during the evaluation [Ref. 3:p. II-18]. Another practice to avoid is that of technical transfusion, where one offeror's superior technical solution is communicated to lower rated technical offerors [Ref. 3:p. II-18]. The point is to avoid discussing solutions to the deficiencies, and instead communicate why the evaluation team determines certain areas of the proposal as deficient.

Cost discussions permit the contracting officer to question offerors on the cost elements of their proposals. For instance, a cost proposal may lack certain cost elements, or the cost proposed may be unrealistic in view of the level of effort expected. Both deficiencies may be addressed during discussions. This allows the offeror the opportunity to reevaluate its position for possible revision in the BAFO [Ref. 3:p. II-18].

Agencies were recently empowered with the opportunity to make awards without discussions to other than the low price offeror provided the cost is competitive and the competing offeror is not susceptible for award. The revision is a result of Section 802 of the 1991 National Defense Authorization Act and incorporated in FAR 15.610 [Ref. 8:p. 15-22]. Past policy required awards without discussions be made to the offeror with the low price bid. Awarding without discussions saves the contracting agency and offerors time and resources associated with conducting discussions and subsequent BAFOs.

g. Best and Final Offers (BAFO)

BAFOs provide all offerors in the competitive range with a common cutoff date to submit modifications to their proposals, ideally directed at the deficiencies noted during discussions. There is no limit on the changes an offeror can make during the BAFO stage although it is possible to require offerors to illuminate changes for ease of evaluation. [Ref. 3:p. II-19]

After receipt of BAFOs, all offers in the competitive range are evaluated once more in accordance with the factors and evaluation criteria listed in the SSP. The only difference is now the evaluation should focus on deficiencies noted during discussions and addressed in the BAFOs. At completion, the strengths and weaknesses of each proposal should be presented to the SSA who makes the final decision that is documented in the Source Selection Decision Memorandum (SSDM). The SSDM should provide the decision, supporting rationale and direction to the contracting officer to make an award. [Ref. 3:p. II-19]

2. Streamlined Source Selection Method

The streamlined source selection method encompasses the same procedures of the formal source selection method and permits the procuring agency the flexibility to award contracts based on factors other than price alone. The streamlined source selection method

is normally reserved for lower cost, less complex procurements. It is also more commonly used. In accordance with the DLA Handbook 4105.3, the streamlining can be accomplished in four ways;

1. Streamlining the source selection organization by limiting the number of persons involved in the source selection process; i.e., limiting membership on the SSEB.
2. Limiting the number of factors and subfactors used in the evaluation process.
3. Limiting the length of technical proposals to a certain number of pages.
4. Standardizing the evaluation factors and criteria to reduce development time and amount of explanation and justification required in the evaluation. [Ref. 3:p. III-1]

All agencies within DoD and NASA have these streamlined procedures which are sometimes referred to as the informal source selection method. Minimum dollar amounts for use of the streamlined source selection method may vary among agencies. The general guidance revolves around the cost of the process compared to the benefit to be gained by employment of the process. For instance, an activity may not feel that the support they are getting from a previously awarded low price technically acceptable offeror is adequate. Prior to recompeting the service, the activity decides through a cost benefit analysis that the streamlined source selection method will be used because it will allow the activity to obtain better services by using evaluation factors other than price alone.

The streamlined source selection method is related to initiatives currently being pursued at NASA and the Defense Nuclear Agency (DNA) to reduce the Procurement Administrative Lead Time (PALT). The Fast Track Procurement program, instituted by DNA, strives to reduce PALT to 120 days on service procurements less than \$2 million [Ref. 13]. It does so by reducing the number of evaluation factors, length of technical proposals and incorporating a structured process with recommended milestones.

As expected, streamlining one aspect of the process will carry over into another. For example, reducing the length of the technical proposal reduces the number of evaluation board members and the time required to conduct the evaluation.

The streamlined organization usually consists of the procurement official, or contracting officer who acts as the SSA and the SSEB. The SSAC is either eliminated or integrated into the SSEB. [Ref. 3:p. III-2]

G. SUMMARY

Chapter II provided a definition of the "best value" concept to be utilized in this study and discussed when it is appropriate to employ "best value" evaluations. Chapter II also provided a definition and discussion of engineering and technical services. The chapter was concluded with a generic discussion of acquisition planning and the "best value" source selection methods for engineering and technical services.

Chapter III will provide data from a survey questionnaire used to conduct telephone and personal interviews. The survey questionnaire solicited opinions from Government and industry personnel on the subject of "best value" and its use in the procurement of engineering and technical services.

III. "BEST VALUE" SURVEY QUESTIONNAIRE

A. INTRODUCTION

Chapter III is a compendium of responses resulting from telephone and personal interviews collected through the use of a survey questionnaire. The questionnaire was developed based upon an analysis of the current literature and discussions with procurement personnel who utilize "best value" techniques to procure engineering and technical services. The questions were left open-ended with the idea of eliciting responses which would correlate into meaningful issues for further discussion. Respondents to the survey were randomly selected, and include procurement and technical personnel from both Government and industry. Prior to the commencement of an interview, the interviewee was informed of the nature of the study and advised that comments received by the researcher will be kept on a non-attribution basis. Interviewees are listed in Appendix B.

In addition to the data collected during interviews, information was collected from local instructions and training aids, three source selection plans, nine requests for proposal, and five source selection decision memorandums representing 17 different contractual actions from eight separate activities. The Federal Legal Information Through Electronics (FLITE) database was screened for Board of Contract Appeals (BCA) and Comptroller General (GAO) decisions for the key terms "best value", "greatest value" and "best buy" with regard to service contracts awarded since 1988.

The data presented are not statistically significant nor do they apply to all DoD activities but represent a significant sample of the issues and problems experienced by the interviewees. The format for presentation of the questionnaire commences with the question, a discussion of the overall responses, and in several cases, a representative

sampling of responses. Separate survey questionnaires were utilized for Government and contractor personnel. Questions are presented in Appendix C. Major issues that were identified during the interviews are defined and analyzed in Chapter IV.

B. GOVERNMENT QUESTIONNAIRE

1. Question #1

How would you define "best (greatest) value"?

a. Discussion

Respondents' definitions of the term "best value" were consistent with published definitions stating that "best value" equates to making the most advantageous procurement decision based on factors other than price alone. The majority defined "best value" in terms of a process, alluding to a method of source selection where the Government is afforded the opportunity to exercise judgment in considering all factors prior to awarding a contract. Adjectives including "subjective," "reasoned," and "sound business" were frequently used as descriptors for the word judgment when defining "best value". Outside the Navy, almost 50 percent of the interviewees were not familiar with the term "best value" although they were familiar with the process of considering all factors including price during proposal evaluation. Four of the interviewees outside the Navy, believed that "best value" was a Navy expression used to describe source selection in which the Navy used a mathematical formulation combining the scoring of costs and technical factors in making a procurement decision. The Navy was the last DoD agency to eliminate the practice of numerically scoring costs. The practice was eliminated several years ago.

Three interviewees offered an interesting caveat that they claimed was a common misconception among procurement and non-procurement personnel. "Best value"

in their opinions, does not mean procuring more than the minimum requirements. Instead, it is a method for assessing risk and in turn choosing the offeror with the greatest probability for successful contract performance.

A final caveat presented by a high ranking Navy procurement official considers "best value" as an objective of the procurement process no matter what the product, service, or method of procurement utilized. While the majority of viewpoints tend to equate "best value" to offering a premium for a higher quality product or service, this viewpoint considers "best value" as an objective. At times, attaining the objective requires the payment of a premium. At other times, "best value" may mean competing a requirement based on low price or low overall cost. This decision is the essence of "best value".

b. Responses

Comments reflective of responses received during interviews are listed below:

"Best value" is a conscious departure from technically acceptable/low offeror procurements. It is dependent on risk. How much premium are we (DoD) willing to pay to avoid risk.

"Best value" means getting the most in terms of performance, quality, and suitability, not necessarily related to price. From a contract administration point of view, it is money put in up front compared to money put in over the long term.

Under "best value", technical means more than cost. Cost becomes more important as technical proposals get closer.

"Best value" means different things to different people. The Government reserves the right to award to other than the lowest bidder based on cost and other factors.

The "best value" concept involves looking at the entire spectrum of factors in making an award. It is based on subjective choices between offeror's proposals.

To some, "best value" means achieving the most bang for the buck. To others, it means making a subjective decision on proposals which the activity feels offers the most advantageous procurement decision to the Government.

"Best value" is not choosing the low bidder. Nor is it choosing the low price technically acceptable offeror. "Best value" is not a mathematical conclusion. "Best value" is a reasoned judgment call based on the reasons of technical ability, management, and cost with no excuses and no apologies.

2. Question #2

Does your activity use numerical scoring, adjective grades or colors to evaluate proposals to achieve "best value?" Why is that rating system used?

a. Discussion

The three rating systems encountered during this study were: (1) numerical scoring, (2) composite methods in which numerical scores are attached to adjective grades or colors, (3) and strictly adjectival descriptors or colors without any numerical points or scales.

Proponents of utilizing strictly numerical scoring methods feel that rating proposals by numerical scores is the most direct and simplified method of evaluation. They also claim that their customers, the requiring activities, favor numerical scoring as a method of differentiating between offerors, i.e., there may be a big difference between a technical score of 81 and 86, both of which may compute to an "excellent" adjectival description.

Composite rating systems employ both numerical scoring methods and adjectival or color descriptors. Activities using composite rating systems appreciate the ease of point scoring for the technical evaluation committee and the flexibility of adjectival or color descriptors offered to the SSA in making award decisions. For example, a technical proposal achieving a numerical score between 80-90 points may be assigned a grade of "excellent" while a technical proposal achieving a grade between 91-100 will be assigned a grade of "outstanding". A composite system is the middle ground between the other two systems, employing both point scoring and adjectival or color descriptors.

Activities utilizing strictly adjectival ratings or colors stress the flexibility inherent in a system unconstrained by numbers. Informally, it appears that activities are

leaning toward the more flexible rating systems. Two Navy activities encountered during this study recently switched from numerical rating systems to strictly adjectival systems. The following is a quote taken from an internal memorandum from an activity currently utilizing numerical scoring although they are considering changing to another method. The memo is dated 29 January 1991.

The assignment of numerical weights too often results in the requiring activity using it as a crutch rather than biting the bullet and coming up with a strong commitment as to whether a higher technical score really offsets a higher cost or in fact, did not offset a higher cost.

Whatever the rating system employed, all activities did stress that the rating system is utilized as a tool. The narrative from the technical evaluation committee supporting the rating is the key in making the award decision. On several occasions, the interviewees inferred that the head of the procurement activity designated the rating system as a matter of preference.

b. Responses

We use numerical scoring for technical elements only based on a 1000 point scale.

At one point or another, this activity has used all three (rating systems), although we recently stopped using colors since NAVSUP didn't like the way we attached meanings to their usage. At present, we are using broad adjectival classes supplemented by point scoring.

We're using points with adjectives. For instance, a score of 85-100 might equate to a rating of "outstanding." The system gives us flexibility through comparison of adjectives rather than total point scores.

We use points exclusively and typically on a 100 point scale.

Colors, because they graphically represent the overall picture. You do not have to go into great depth to understand colors. Colors are more flexible, offering a wider latitude to the SSA. Besides, the Air Force has a regulation banning a mathematical formula.

Point system with narrative.

A color code system is used for a visual aid as a background for which narrative is most important.

Adjectives. Absolutely no numbers are used during the evaluation process. We used numbers in the evaluation process, but switched to adjectives about two years ago. At first I was doubtful, but now I would not use any other rating system.

It is really academic what you use; numbers, colors, or adjectives. It all depends on the SSA and what he or she feels comfortable with.

3. Question #3

How do you decide a certain requirement requires the use of the "best value" method?

a. Discussion

Responses to this question were consistent with published guidance noted in Chapter II. Non-routine service requirements and vague PWSs were normally cited as indicators necessitating the employment of "best value" evaluations. Many interviewees responded that they utilize "best value" evaluations almost exclusively. Others utilize "best value" evaluations less frequently. Several respondents stated that one must review the type of contract. Generally speaking, cost type contracts should result from the use of "best value" source selection procedures. Augmenting the above indicators on when to utilize "best value" evaluations is the input received from requiring activities and contract review boards which provide guidance on the type of procurement necessary for a specific requirement.

b. Responses

It depends on what you are contracting for. The contracting officer usually gets a good idea of direction from the branch manager and others during contract review panels. The contracting officer is very sensitive to this recommendation.

This decision requires coordination and a good deal of definition. History has shown that engineering and technical services procured on a low offeror basis has led to miserable support overall.

The determination is made in conjunction with the technical code requiring the support.

This activity utilizes an acquisition strategy board prior to release of the SOW and RFP. The program manager makes the initial call, but it all depends on the risk assessment.

It depends on the technical approach. With basic services, a responsibility determination is adequate. For more complex omnibus or engineering support services, "best value" involves looking toward other factors. Contracts and technical have had arguments about this. Just because a requirement calls for aerospace technology doesn't mean a run of the mill machine shop can't perform the work.

It depends upon the requirements. Basic maintenance services do not usually require "best value". However, more complex services do. Preplanning with the technical activity is very important.

Use of "best value" is dependent on the SOW and complexity of the requirement.

Depends on how important the technical factors are to the job requirement.

Consultation with the technical activity requiring the service. You also need to take into account the type of service and contract type. With a cost reimbursement contract, you will generally lean toward "best value."

The determination relates to the service. If service is not clearly measurable in the area of acceptability, one will generally lean toward "best value."

4. Question #4

What are the factors and subfactors your activity uses for "best value" evaluations for engineering and technical services contracts?

a. Discussion

Responses to Question #4, during telephone interviews, consistently yielded the factors Technical, Management, and Cost as a basis for "best value" evaluations for engineering and technical service contracts. An examination of a database of local instructions, three source selection plans (SSPs), nine requests for proposal (RFPs) and five source selection decision memorandums (SSDMs) from 17 unique contracting actions at eight different activities is presented in Table 2 below. The data should be viewed as a rough order of magnitude tally only since the researcher arbitrarily assigned subfactors with reasonably close descriptions to other subfactors. For instance, the subfactors "manpower utilization matrix" and "retention policies" were included with the subfactor "management plan/approach."

**FACTORS AND SUBFACTORS UTILIZED FOR "BEST VALUE"
PROCUREMENTS OF ENGINEERING AND TECHNICAL SERVICES**

TABLE 2

FACTORS	TIMES LISTED
Technical	17
Management	5
Cost	17
Corporate Experience	1
SUBFACTORS	TIMES LISTED
Corporate/Company Experience/Background	14
Technical Approach	14
Personnel Qualifications/Experience	17
Management Plan/Approach	12
Sample Tasks	9
Corporate Resources/Facilities	6

Technical, Management, and Cost are the key factors in "best value" procurements for engineering and technical services although, in this sample, Management is generally listed as a subfactor of Technical. Other key subfactors are: 1) Corporate Experience/Background, which can be viewed as the level of experience in identical or similar contracts (these data are used by several activities to perform a qualitative past performance assessment on the offeror); 2) Technical Approach/ Technical Understanding, which equates to an understanding of PWS requirements; and 3) Personnel Qualifications of key personnel represented by resumés supporting minimum requirements for experience and education of proposed key personnel. The subfactor Corporate Resources/Facilities evaluates the offeror's facilities and equipment, and Sample Tasks allow the offeror to propose solutions to tasks which have been previously assigned or may be assigned in the future. In accordance with the FAR, Cost/Price is a required evaluation factor for all proposals [Ref. 8:p. 15-19].

5. Question #5

How are past performance data collected and utilized in "best value" source selection for engineering and technical services contracts?

a. Discussion

According to interviewees, past performance is a factor or subfactor in the overwhelming majority of "best value" evaluations for engineering and technical services contracts. The process of collecting past performance data commences with the instructions to offerors, Section L, of the RFP. Section L requires offerors to submit a detailed listing of previous contracts or experiences similar to the current PWS. This requirement is normally listed under the evaluation factor "Corporate Experience/Background". Once the data on experience are collected, the activity utilizes these data to research an offeror's past performance. Past performance data are collected through the use of questionnaires or telephone queries to the procuring activity or the contract administration office having cognizance over previous efforts. Past performance data are typically related to the contractor's adherence to proposed cost, schedule and general cooperativeness. An example of a questionnaire utilized by NAVAIR to collect past performance data is presented in Appendix D. The process of past performance data collection can be either formal, under a structured program, or informal where one activity contacts another to check the validity of data provided by the offeror and for general information on a contractor's performance. Both methods were encountered during this research.

Unlike past performance data for tangible items, there is currently no rating system like Red/Yellow/Green, Blue Ribbon Vendor, or the Contractor Performance

Rating System for engineering and technical services contractors. This fact is related to the inherent difficulty of assessing quality and delivery schedule compliances of service contractors performing under vague PWSs.

The Naval Sea Systems Command (NAVSEA), Washington, D.C. recently implemented a pilot program, the Contractor Performance Index (CPI), to fulfill the need of providing assessments on the past performance of engineering and technical services contractors. The program utilizes supportable and verifiable data from Contracting Officer's Technical Representatives (COTR) to assess the positive and negative aspects of a contractor's past performance on a given contract over a specified period of time. CPI allows for, "Subjective assessments concerning the causes or ramifications of the contractor's performance (which) should be provided; however, speculation and conjecture should not be included." [Ref. 14:pp. 1-2]

One of the major issues noted during interviews germane to the use of past performance data was the concern of past performance data being substituted for a responsibility determination. In fact, over 50 percent of the interviewees presented with Question #5 said that care must be taken not to utilize past performance data in place of a responsibility determination. What this means, is that if a contractor is found responsible to provide the services desired and has a certificate of competency from the Small Business Administration, the Government cannot subsequently utilize data based solely on past performance to override the responsibility determination during the source selection evaluation process. Two interviewees responded that they believe responsible small businesses with certificates of competency indicating responsibility were eliminated under the guises of "best value" source selections based on past performance. This was

evidenced in a Comptroller General decision in the matter of FLIGHT International Inc., discussed in Chapter II and Comptroller General decision B-231607 of 20 September 1988 in the matter of Sanford and Son [Ref. 3:p. II-13].

All activities encountered during research attribute only a small portion of the evaluation's total weight to past performance. In reference to the sample of contracting actions collected during this research and discussed in Question #4, it was found that the weightings of the subfactor Corporate Experience/Background ranged between 2.5 and 15 percent of the total evaluation with the majority of the weightings ranging between 5 and 10 percent of the total evaluation. As a result of this relatively small weighting, the past performance subfactor should not overwhelm other factors during evaluation.

A recent trend in past performance evaluations discovered during personal interviews, is the recognition that all past performance data provided will not be complimentary toward the offeror. In other words, the Government is urging contractors to present all past performance data good or bad. In cases where poor past performance data exist, offerors are encouraged to provide data advising the procuring activity how the problems were addressed, corrected and the current status. If the corrective action has merit, the offeror will not be downgraded for that particular discrepancy. An example of this trend was offered by a senior Navy acquisition executive who identified two offerors, both of whom were delinquent on their last contract. The first offeror maintained the reason for delinquency was late Government Furnished Material (GFM). The second offeror also maintained the reason for delinquency was late GFM, however the second offeror went further by outlining the actions taken by the contractor in an attempt to work around the problem. The anecdote was ended with a question "Based solely on the example, which offeror would you select?"

b. Responses

This a delicate area. In either case, whenever past performance is good or bad, it will be given 110 percent of the evaluation by the technical evaluators. You must be careful not to assign an inordinate amount of weight to past performance since it could amount to a responsibility determination. The key is to ensure contractors understand past performance is important and tell them so in the solicitation. It needs to be one of the foremost things in their minds while performing a contract.

We call for past performance data in the RFP. Contractors submit 36-60 months of prior performance data. We evaluate this performance data along with the same information we get from the contract administration office. It can equate to a damming (poor) mark if we find out poor past performance by ourselves and it was not presented by the contractor. A contractor can fix the stigma of poor past performance by presenting a management plan in enough detail that tells us how they intend to correct the deficiencies.

Past performance is a management factor. Call past references. If you only get one bad reference or no references, then subtract points for past performance.

That is a tough question. Corporate experience with regards to products is much easier. It is more difficult for services because we cannot normally say something like, "Well 85 percent of your products were on time without deficiencies" for service contracts. How to evaluate past performance must be written into the SSP. For this activity, past performance is normally written in as a major category.

You need to be careful you do not cross the line into a responsibility issue. For instance, not asking for information on how the offeror would complete the effort under this solicitation and concentrating instead on past performance on other contracts.

Past performance is a touchy area since you can get into responsibility issues. It could also give you false readings. For instance, there may be a different management team for this contract than for one that was completed previously.

Services are not yet incorporated in the contractor performance assessment rating system. We use questionnaires to collect data.

The plan on how to evaluate past performance must be tailored to each buy. We look at how responsive headquarters was to local management problems. Past performance also needs to be reviewed in light of what type of contract was let in the past. For instance, you need to evaluate past performance differently under a fixed price effort compared to cost reimbursement.

6. Question #6

What are some of the problems or issues your activity faces with "best value" evaluations for engineering and technical services contracts?

a. Discussion

The personnel interviewed were unconstrained by the researcher and encouraged to provide as much information as they desired. Many interviewees provided three or four problems, while others provided only one. Several interviewees expounded by providing a description of a problem and an example while others provided only one line descriptions. The severity of the problem in relation to the overall process was not assessed.

Overall, responses to this question were varied but generally focused in the areas of acquisition planning and proposal evaluation. Although rarely mentioned specifically, a pervasive problem perceived by the researcher was a lack of time and/or resources to properly plan and conduct a "best value" evaluation.

The list of problems is segregated into three categories; 1) Acquisition Planning, 2) Proposal Evaluation, and 3) Other. A brief description of the problem and the number of times it was mentioned is listed below each category. Problems mentioned most often are further defined and analyzed in Chapter IV.

CATEGORY

<u>Acquisition Planning</u>	<u>Times Noted</u>
1. Requiring activity feels constrained by a technical/cost tradeoff during "best value" evaluations. Instead, the evaluation should focus entirely on the technical proposal.	5
2. Improper planning of evaluation criteria used in proposal evaluation to differentiate between offerors.	10
3. PWSs written restrictively allowing unfair advantage to incumbent.	4
4. "Best value" method employed when low price/technically acceptable offeror strategy would yield the same result.	5
5. Too many subfactors add complexity to process and dilute results.	3

- | | |
|---|---|
| 6. Poor communications between procuring and requiring activities in acquisition planning phase. | 6 |
| 7. Evaluation criteria established which do not deal with true quality considerations between offerors. | 2 |

Proposal Evaluation

- | | |
|---|----|
| 1. Contractor gaming on cost and technical proposals. | 19 |
| 2. The technical evaluation committee is not trained nor is it sensitive to the proposal evaluation process. | 19 |
| 3. SSP formulated by different group other than personnel who actually conduct the technical evaluation. | 2 |
| 4. Problems with past performance data use in evaluations; 1) using past performance in evaluations as a guise for responsibility determinations, 2) fairness issues associated with using past performance to downgrade a technically acceptable offeror with no experience, and 3) evaluating past performance on different management teams within the same corporation. | 6 |
| 5. Contractor bait and switch tactics with key personnel. | 4 |
| 6. Resumé requirements written and evaluated for specified personnel, i.e., personal services. | 4 |
| 7. Cost realism; only a paucity of guidance available on how to complete. | 4 |

Other Issues

- | | |
|---|----|
| 1. Contractors distrust the "best value" source selection method. "Best value" represents a method the Government uses to select the contractor they wanted in the first place. | 11 |
| 2. Government sending the incorrect signals to contractors by cutting budgets, yet continuing to offer premiums. | 3 |
| 3. Legal considerations. "Best value" evaluations offer too many areas to protest. | 2 |
| 4. Centralization of contracting activities, NRCCs, is not an organization conducive to obtaining the "best value". | 3 |
| 5. Contract administration: The Government is not getting what it is paying for in higher rated technical proposals. | 5 |

- | | |
|---|---|
| 6. Too many changes to the procurement system. Policymakers attempting to transform an inherently subjective process into an objective one. | 5 |
| 7. Funding: Requiring activities limit requirements based on funding constraints. When more funds become available requiring activities desire to increase scope of contract. | 2 |

7. Question #7

How does your activity determine the need to pay a premium for a technically superior proposal over a proposal which is technically acceptable, yet lower priced?

a. Discussion

The essence of the "best value" concept lies in the reasoned judgment of the SSA in assessing relative strengths and weaknesses of competing proposals. In determining whether to pay a premium for a higher rated technical proposal, the interviewees resoundingly emphasized the use of this judgment. Of course, in order to assist in making the judgment more educated, many interviewees stressed the importance of a cost benefit tradeoff analysis which assesses the impact to the Government resulting from a technically superior proposal with the highest score or rating, in comparison to the proposal which is technically inferior but provides the lower evaluated cost. This tradeoff analysis is performed by the technical evaluation committee who assesses and documents the technical differences in a quantitative format. Essentially, they determine how much more the technical superiority is worth in dollars?

A more objective measure of quantifying the cost/technical tradeoff encountered during this study, was in the form of a linear relationship where the acquisition planning process established a minimum acceptable technical score. Additional technical points over the minimum acceptable score are equated with a percentage premium the activity would be willing to pay. For instance, if the minimum acceptable technical score was 80 on a 100 point scale and technical was two times more important than cost, the

activity would be willing to pay up to a 40 percent premium over the lowest acceptable technical proposal, or 2% cost for each point in technical above the low acceptable offeror. This premium is advertised in the solicitation. It should be emphasized that even with this objective measure, personnel at the activity stressed that the use of judgment continues to be the key to the tradeoff process.

One final area where reasoned judgment plays a key role is when technical scores are very close. If this occurs, a determination may be made to call the technical proposals equal and the contract award is made on the basis of lowest evaluated cost.

b. Responses

This is not really a big problem. We use a premium method which represents a linear relationship between cost and technical. For instance, one point of technical is worth two percent of a cost premium. If score is within one or two points, we'll usually call the proposal equal on technical merit and award to the low offeror.

We try to use the best engineering and technical judgment. As an SSA, I require the chairman of the SSEB to explain differences to me in terms I can understand. If I can understand the differences, then other people can too. I call it the reasonableness test.

You need to look at the discriminators which were set up in the SSP and communicated to offerors via the solicitation. What are the differences in? There is no formula for it. It all depends on deliberative and reasoned judgment.

Mathematical formulations to arrive to this point are only tools. We are not compelled to award to an offeror based on high score alone. The contracting officer and chairman of the SSEB present all the facts to the SSA who utilizes educated judgment.

This happens frequently. You need to go back to the SSEB and have them tell you how much the extra technical is worth in dollars. They (technical evaluators) do not get the difference in dollars up front. They could possibly manipulate the system if they had the costs.

We require a cost impact statement from technical which basically equates to a cost/price tradeoff analysis. You can give them costs before hand or ask them to justify an amount the extra technical is worth. If technical is very close, based on narrative, we'll go with the low cost offeror.

There is no specific guidance on the mechanics of the tradeoff analysis since we do not want to tie the hands of the SSA. I have seen it done both ways. Supplying technical with the costs at this point and not supplying them with costs. Whatever the method, the narrative is critical.

The chairman of the SSEB has to be able to communicate that for this much more in price these are the advantages we will obtain so that a Colonel or General (SSA) will understand.

It all boils down to a judgment call by the SSA which is not as objective as some might be led to believe.

8. Question #8

How does your activity conduct the cost realism analysis for engineering and technical services contracts?

a. Discussion

Responses to this question emphasized the use of independent Government cost estimates based on historic and similar efforts. Should cost and most probable cost estimates were also mentioned utilizing DCAA provided labor, overhead and general and administrative rates, the Department of Labor's wage determinations and Government civil service wage scales as standards. Overall, responses typically described the cost realism analysis as a time consuming process many times exacerbated by company ventures requiring the use of subcontractors whose costs are also subject to analysis.

Examples of cost realism analyses reviewed at several activities revealed that they concentrated on the major cost elements; direct labor, overhead, and general and administrative expenses. Material, other direct charges and escalation rates are usually "normalized" for engineering and technical services contracts meaning that there should be no logical differences between contractors on these costs. As a result, all offerors are evaluated on the same normalized cost figures.

Direct labor rates were usually compared to DCAA audited labor rates and rates from previous or similar contracts. For the Service Contract Act covered labor categories, there is normally a comparison of proposal rates with those published by the Department of

Labor. Of course, comparisons of rates are not always straight forward. At times, labor categories provided by the Government do not match the nomenclature of categories provided by the contractor. Section L of the RFP normally requires a cross reference to match labor categories represented in the RFP to those proposed.

Overhead rates were compared to DCAA audited overhead rates and overhead rates on previous contracts. Several interviewees noted that there was a "twist" to comparing overhead rates in this type of analysis where the objective is to ensure that the proposal is high enough to cover the cost of the contract performance. This is in contrast to DCAA's normal concern which is to ensure that the Government is not being overcharged. Fringe benefits is another key concern when evaluating overhead rates. The concern is with the ability of a contractor to retain quality employees without providing adequate fringe benefits such as vacations and medical plans. DCAA audits and historical costs are also consulted with regards to uncompensated overtime, which can be used as an indicator of the expected quality of work and retainability of employees.

Opinions from interviewees and a review of a small sample of actual cost realism analyses indicated that proposal costs are adjusted upward on a large percentage of proposals. In fact, one interviewee estimated that costs were adjusted upward at least 75 percent of the time based on a cost realism analysis. This estimate may be on the upper end of the spectrum, but as evidenced from the number of respondents noting contractor gaming on costs as a problem, the percentage of upward adjustments of contractor costs is relatively large.

b. Responses

Labor rates are the important things in this type of contracting. You really need to look at and compare expertise and quality with the rates proposed.

Contractor gaming makes cost realism difficult. Companies form joint ventures with others where nobody with resumés provided is assigned to the company being evaluated. Companies set up new cost centers. There is really no one way to do cost realism and answer all the questions.

This activity uses SCA dollar wage advisories and historic rates. Basically a thorough should cost analysis.

It is difficult to find material on cost realism. Each person does it different. For this contract, I developed my own approach establishing a matrix including past contract information and rates from a similar contractor in the area.

Cost realism requires balancing the cost proposal and the technical proposal to ensure things match up. Normally it does not require the assistance of the technical people to do this.

We get very involved in the personnel costs proposed to ensure these costs match the technical proposal. There have been instances where the entire proposal has been refuted on a mismatch between the two.

Many contractors are reliable, others are not. Lots of extra work, time, and effort are expended on cost realism because you cannot rely on their (contractors') data.

Since we do not always have an independent Government cost estimate, we rely on a most probable cost scenario where the customer provides an estimated labor rate, labor estimate, and materials.

Our job is to figure out if costs proposed are realistic, fair, and reasonable, and there are too many intricacies to making up specific guidelines on the subject.

Cost realism analysis require saavy and experience.

Cost realism requires ethical behavior from both the contractor and the Government.

C. CONTRACTOR QUESTIONNAIRE

1. Question #1

How would you define "best (greatest) value"?

a. Discussion

Definitions provided by contractors were completely consistent with definitions provided by Government personnel. A total of seven contractors were interviewed for this study, and all were familiar with the term and the concept. All provided services to the Navy.

2. Question #2

How do you feel about the "best value" concept utilized by the Government in awarding contracts?

a. Discussion

Consensus among the sample of contractors contacted for this study believed that the "best value" concept is a good one for two reasons. First, its premise is based on high quality over low price, and second, because it is a method of protecting responsible offerors from offerors who bid unrealistically low rates when competition is based on price alone, i.e., a \$7 per hour engineer. A program manager for a major support contractor that was recently awarded a "best value" contract, admitted that he knew his firm was not the low bidder after the award. He also admitted that due to the "best value" award, he feels the firm is more motivated to perform quality work rather than focusing on lowering costs.

Unfortunately, contractors do not always believe that the Government is focusing on quality in lieu of costs. This was mentioned by both Government and contractor personnel. Instead, contractors accuse Government procurement officials of being overly concerned with the low bid. Some of this perception is true. One Government interviewee admitted how he was unable to eliminate a technically unacceptable offeror from the competitive range because "the price was too good."

The perception held by contractors of the Government being concerned solely with price, leads to cost and technical gaming sometimes attributed to "remaining competitive" and "fighting fire with fire." As one contractor stated, "Gaming is a result of the rules of the road and contractor's mistrust of the process. I feel Government should award on the basis of technical superiority only!"

b. Responses

I do not believe Government is always buying the "best value". Everyone needs to change their mindset before "best value" will happen. The current mindset is on low cost.

I think it is great! There have been a great proliferation of companies bidding jobs they cannot do. "Best value" is a way to correct it.

"Best value" is easier to do with something tangible like widgets. It is more difficult in a softer area like services. With widgets you can look at MTTF, warranty and other things.

"Best value" is the only way to purchase something that is not under detailed specifications. Unfortunately, pressure is on the Government contracting officer to award to the low offeror. The Government can do a better job in this area. Too many contracts are awarded to the low bidder.

The concept is right on because picking contractors based on the low bid is no good. Under low bid you get the \$7.00 per hour engineer and firms have to fight fire with fire. I sometimes think "best value" is only lip service though.

"Best value" is terrific if the Government can stick to it.

3. Question #3

Does your firm have any problems with "best value" solicitations let by DoD for engineering and technical services? If so, what are they?

a. Discussion

The responses to this question presented an almost even split of contractors who believe "best value" solicitations are clear and those who do not. Half of the respondents believed that solicitations offered ample information regarding the evaluation criteria and what was important to the Government. The other half do not believe that the evaluation criteria are clear partly due to, as one contractor stated, "consistently changing language in Sections L and M of the RFP." Although procuring activities have attempted to standardize evaluation factors and "best value" wording in RFPs, there is little standardization between different activities. Compounding the confusion are the different

rating systems used at different activities. Contractors, constrained by resources and faced with what some term "cut throat" competition, need to determine where to place their emphasis when constructing a proposal.

b. Responses

Government tries to define pre-established rates and levels of qualifications. Many times they (Government) fail on both counts.

Past performance if evaluated is difficult for the new guy on the block. You may have a new guy who is great. You penalize him because of little past performance data.

I am never really clear what the evaluation criteria are. NASA does a good job in this area, however, DoD is somewhat haphazard. Good criteria means it is easier to understand what the Government will evaluate.

I have no problems with the solicitations. What I do have problems with is that I lack confidence that the Government is actually going to award "best value". There are problems in the environment. Rules continue to change. It used to be low offeror with discussions, now it is "best value" without discussions. Sometimes it is hard to keep up.

4. Question #4

How do you feel about awarding contracts on a "best value" basis without discussions?

a. Discussion

Contractors and Government personnel favor awarding contracts without discussions because it can save resources by streamlining the process. However, in responding to this question, all contractors cautioned that awarding without discussions is good policy only when PWSs, instructions to the offeror, and evaluation criteria are well defined. These criteria are typically not present for engineering and technical services unless the effort is mature and well established. This researcher encountered only one engineering and technical service contract awarded without discussions. It was awarded to an incumbent who was evaluated with the high technical score and low cost. Furthermore, in this situation, it was believed that no other competitor was susceptible to award of the

contract. However, a supervisory contract specialist at one activity estimated that up to 25% of the contracts awarded at his activity are awarded without discussion to other than the low priced offeror.

5. Question #5

In your view, does the Government do an adequate job of cost realism analysis?

a. Discussion

Two contractors cited the Government's poor history in performing a cost realism analysis through the example of the \$7 per hour engineer. However, at present, the overwhelming majority believe that the Government is performing more accurate assessments of contractors' actual costs. Moreover, contractors now believe that the Government is comparing cost and technical proposals for cost realism purposes.

Of course there are still a number of contractors who doubt the effectiveness of a cost realism analysis. One contractor responded that he sees "a lot of high sounding words about cost realism in RFPs, but I sometimes believe it is only lip service," citing an example where his firm was the low price offeror prior to the Government adjusting their proposal price upward. He felt that his firm lost the contract largely because of this price adjustment and stated that after such an occurrence "it always makes you wonder if the Government is only justifying a way to pick the contractor it wanted in the first place." Another contractor responded that "industry knows more about its costs than does the Government," raising the issue of industry's opportunity to justify its cost prior to award or request for a BAFO.

Finally, every contractor interviewed brought up the topic of uncompensated overtime (UCOT) while discussing the cost realism analysis. All contractors in this small

sample believe that UCOT usage in proposals should be prohibited by regulation since it allegedly "destabilizes the playing field". The UCOT issue is further defined and addressed in Chapter IV.

b. Responses

(Cost realism) Used to be horrendous. Resumes of the best people were in the technical proposal but not in the cost proposal. UCOT problems- how much UCOT is actually being applied to the contract in question? Before the technical and cost people never got together. Today, I think that is different. People are starting to talk to one another in my estimation.

UCOT is still a problem judging by input from the field, but it is now popping up in different places like Huntsville, Alabama.

Sometimes the contractor has a better understanding of what the effort will cost than does the Government. We have more years of experience.

On our current contract yes. The Government should watch UCOT though because in my estimation it leads to a lower quality of work.

Government does a good job if they want to. Problems in evaluating cost realism are in the area of UCOT which is voodoo. Even those who bid it do not understand it. UCOT is screwing over the Government and the contractors. It is hard to justify and cost. It forces Government to look at the bottom line.

D. SUMMARY

Chapter III discussed and presented responses to a survey questionnaire used to solicit responses from Government and industry personnel. Data collected from a sample of SSPs, RFPs and SSDMs were also utilized to respond to several questions in Chapter III. Major problems and issues discovered as a result of the survey questionnaire are the subject of Chapter IV.

IV. PROBLEM DEFINITION AND ANALYSIS

A. INTRODUCTION

This chapter will focus on the definition and analysis of the most frequently mentioned problems associated with "best value" evaluations identified in Chapter III. The most frequently mentioned problems discussed in this chapter are: 1) the selection and weighting of evaluation criteria, 2) the technical evaluation process, 3) contractor gaming in cost and technical proposals and 4) contractor distrust of the "best value" source selection process.

B. PROBLEM #1: EVALUATION CRITERIA

The determination and weighting of appropriate evaluation criteria which differentiate between offerors for use in "best value" evaluations.

1. Problem #1 Defined

The determination of the proper evaluation criteria for use in source selection is a critical aspect of the acquisition planning process. It was mentioned as a problem by several respondents to the research questionnaire as well as by NAVSUP, which noted Problem #1 as an area of concern from both the technical and procurement personnel. This was documented in a report by the Naval Supply Systems Command Greatest (Best) Value Source Selection Process Action Team which stated a "Need for the joint development of source selection plans which lead to differentiation between offerors and emphasis on past performance and quality" [Ref. 15:p. 4]. Problems in this area were also observed during visits to contracting activities.

2. The Importance of Evaluation Criteria

Evaluation criteria are essential in providing a framework necessary to ensure that a quality service is obtained. The SSP is used to communicate these criteria plainly to source selection officials and is the crucial document in preparing the RFP which communicates these criteria to potential offerors.

It is important that the evaluation criteria be individually tailored to each procurement in accordance with FAR 15.605. The evaluation criteria should also be limited so as to select criteria which will focus on the important issues for the successful accomplishment of the PWS. Proper selection of evaluation criteria is necessary to effectively discriminate among the proposals and permit the correct ranking of the proposals in the order of their value to the Government.

Properly identifying the evaluation criteria increases the probability of evaluating and selecting the most advantageous contractor. If the requiring activity knows what aspects an offeror's proposal should address and how these aspects will be evaluated prior to the technical evaluation, then chances are much greater of conducting a disciplined source selection and making the most advantageous procurement decision. If the evaluation criteria are poorly identified, there may exist inconsistencies in the technical evaluation process which increases the time required to perform the evaluation and the possibility of protest by unsuccessful offerors.

3. Deficiencies Mentioned by Contracting Personnel Regarding the Evaluation Criteria in "Best Value" Procurements

The following comments collected during this research reflect the problems with evaluation criteria for use in "best value" procurements:

We utilize 14 standard factors and subfactors to evaluate offerors. Unfortunately, this sometimes has an averaging effect.

It is sometimes hard to discriminate between offerors of engineering and technical services. Sample tasks are a good way to do so if they are reasonable and evaluation of them is critical.

Evaluation factors (identified by the requiring activity) are not always intrinsic to the job. For example, does it really matter if the contractor's facility is close by or far away? Sometimes it makes no difference.

Using the right evaluation criteria is "motherhood" for all procurements. They (evaluation criteria) are usually harder to write for "best value" procurements though.

One of our biggest concerns is to ensure we have finite discriminators and actual tasks which are needed to be performed. For instance, in the area of resumes for key personnel, we have to watch out since we are buying a level of expertise and not personal services.

The hard part about "best value" is setting up evaluation criteria which will get you there.

Several times, (evaluation) criteria made up by the requiring activity do not make common sense. Why do you need someone with that much experience?

One has to be careful not to lose the forest through the trees when identifying evaluation criteria. It is really important for technical to understand their requirement and what they consider important to accomplish it. Many times technical chooses too many criteria.

4. Examples of Problem Situations with Evaluation Criteria Encountered During this Research

Examples of problems with "best value" evaluation criteria encountered during research are presented below. Each example demonstrates how the selection of evaluation criteria can affect the procurement of the most advantageous procurement decision. The first example presents the standard criteria and subcriteria used in evaluations at one activity which at times has the effect of diluting evaluation results. Diluting results means it is more difficult to discriminate between offerors. The second example demonstrates how too many evaluation criteria, poorly presented can complicate the technical evaluation process and make it more difficult to determine the most advantageous procurement decision. The final example, presents technical criteria discussed at a meeting attended by the researcher between a requiring activity and contracting personnel regarding evaluation criteria for a

"best value" procurement. As a result of the meeting, the acquisition strategy changed from "best value" to a low cost technically acceptable.

a. Example #1

The following are technical evaluation criteria and subcriteria, quoted from a standard source selection plan used at one activity. These criteria sometimes have the potential effect of diluting the results of the technical evaluation. The sample plan states that the factors used in the technical evaluation "shall include all the evaluation factors described below:"

1. CRITERIA

a. Technical/ Management

(1) Technical Approach (Criteria)

Subcriteria:

- (a) Understanding and Approach**
- (b) Specific Technical Capability**
- (c) Problem Areas**
- (d) Unique Ideas and Capabilities**
- (e) Workforce Loading Plan**
- (f) Start-Up Plan**
- (g) Sample Tasks**

(2) Experience (Criteria)

Subcriteria:

- (a) Personnel Qualifications**
- (b) Corporate Experience**

(3) Management Approach (Criteria)

Subcriteria:

- (a) Contract Management**
(include subcontractors, if any)
- (b) Interface**
- (c) Organization**
(include subcontractors, if any)
- (d) Cost Management**

(4) Facilities and Resources (Criteria)

No subcriteria

The problem with employing the above number of criteria and subcriteria to evaluate proposals is the potential averaging effect. In total, there are four criteria and 13 subcriteria for utilization during a technical evaluation. Attaching weights to each of the above criteria and subcriteria dilutes the effect of what may really be important to the requiring activity and therefore makes it more difficult to discriminate between offerors. In this situation, requiring activities should be afforded the opportunity to choose only the most important criteria for the evaluation. All criteria and subcriteria may not require review in each evaluation.

b. Example #2

This example demonstrates how too many criteria, poorly presented, can complicate the technical evaluation and increase the time required for the source selection process. The result, limits the effectiveness of a "best value" evaluation since technical evaluators may not be certain as to which considerations are the most important to the requiring activity. In this example, there are far too many criteria or "considerations" to review in completing the technical evaluation. In addition, there are no weights, quantitative or qualitative attached to any of the considerations. As a result, it is not possible to determine which of the considerations are important and which ones are not. One evaluator may grade the factor very high based on one or several criteria, while another evaluator may grade the proposal low based upon other criteria. The following is quoted directly from the technical evaluation plan.

PLAN TO ACCOMPLISH WORK

Maximum Score Available- 10.0 points

Each evaluator shall review and score the proposal of the offeror based on the following subfactors.

Subfactor 1: Organization

Maximum Score Available- 5.0 points

Structure of the organization, or proposed organization, and relationships to the task of the parent company, and subcontractors (if any) and interface.

Considerations:

Does the proposal detail and specify clearly that the offeror has a thorough understanding of the requirement? Are the technical problems understood? Are valid and practical solutions set forth? Is there an organizational structure chart in the proposal? Do the lines of communication appear clear? Are relationships to tasks of the parent company fully explained? Does the organizational structure contain any ambiguities when compared to the other sections? Are lines of communication clear between key personnel and management? How will the contractor communicate with the requiring activity? Are the lines of communication clear? How will the contractor communicate with any proposed subcontractors? When compared with resumes, are key personnel authorized appropriate responsibility? Does the proposal indicate that the appropriate number of personnel are employed on a permanent basis and available during key workload periods? Is delivery order processing discussed? How will the order be processed by the offeror and disseminated to key personnel? Are any contractual arrangements other than cost reimbursement contemplated for this proposal? Are there any firm fixed price or time and materials type subcontracts proposed? If proposed, is there a rationale to document any proposed technical advantage? Does the proposal indicate a start up plan to fully perform within sixty days after award of the contract? Is the plan realistic and detailed? Does the proposal explain the proper methodology and procedures to responding to delivery orders? Do these plans show management responsibility? Are uncompensated overtime hours proposed? Is the appropriate information provided as indicated in section L? Are the uncompensated hours proposed a substantial benefit to the Government? How do subcontractors interact with the prime? Is this documented sufficiently? Attachment (2) sets forth a checklist to assist the evaluator in determining the evaluated score.

Evaluator's Score _____

Evaluator's narrative:

The above example includes 27 considerations for each proposal. Some of the considerations are subjective, i.e., Do the lines of communication appear clear? Other considerations are more objective, i.e., Is an organizational chart presented in the proposal? Based on the number of considerations and the mix of subjective and objective measures, it may be extremely difficult if not impossible to differentiate between offerors. Which

offeror presents the most advantageous procurement decision depends upon which considerations the technical evaluator determines to be the most important.

In addition to subfactor #1 presented above, "Organization", the total technical evaluation consisted of nine subfactors with approximately 20 considerations each. Besides complicating the evaluation process, the amount of time and resources required to assess and document each proposal evaluation may be excessive.

A less complicated format for presenting and rating evaluation criteria for a technical evaluation was extracted from another sample evaluation plan and is presented below. This example is for the subfactor "technical approach- sample tasks".

SUBFACTOR: TECHNICAL APPROACH

OFFEROR _____

EVALUATOR _____

PART 2- SAMPLE TASKS

SAMPLE TASK #

To what extent did the proposal demonstrate understanding of the feasibility and ability to successfully perform the task in the following responses:

Rating*
O B A M U

1. The proposal provides a description of the possible areas to be investigated in researching the task.
2. The proposal provides a detailed description of the technical approach including a detailed step-by-step procedure and methodology which would be used in accomplishing the task.
3. The proposal identifies additional information that would be required to perform the task.
4. The proposal contains a detailed work plan for implementation.
5. The proposal contains a product outline describing what would be the expected deliverables and results from this task.
6. The proposal contains manhours by labor category.
7. Overall rating.

*Ratings- O= Outstanding, B= Better, A= Average, M= Marginal, U= Unsatisfactory
Narrate any strengths and weaknesses below:

The simpler format presented above allows the TEC to reduce the time required in a technical evaluation. It also clarifies for the evaluator what the requiring activity views as important in an understandable format. The smaller number of considerations also reduces the probability of subfactor dilution. Note that all considerations receive an adjectival rating with an overall rating included at the bottom of the evaluation sheet. Each consideration is not weighted but reviewed in lieu of all other considerations. In the prior example there would have been 27 ratings, one for each consideration. This simpler format permits the evaluator to use judgment during the evaluation by only requiring the evaluator to review six considerations before making a determination on the overall rating.

c. Example # 3

The final example was observed during a meeting between a requiring activity and contracting personnel when discussing the use of "best value" to procure a series of environmental tests. The following technical evaluation criteria were submitted to the contracting activity for approval prior to the solicitation.

TECHNICAL EVALUATION CRITERIA

	Factor Weightings
1. Technical	75
a. Environmental and safety tests per SOW	25
1) 28 day temp and humidity	5
2) transportation vibration	5
3) fast cookoff	5
4) slow cookoff	5
5) bullet impact	5
b. Qualified personnel per SOW	20
1) senior test engineer	5
2) test engineers	5
3) test technicians	5
4) security staff	5
c. Adequacy of facilities	20
1) proper test equipment	10
2) adequate security and storage	5
3) handle test items safety	5

d. Performance of similar tasks	10
1) depth of understanding	2
2) realistic techniques	2
3) technical approach	2
4) experience	2
5) data requirements	2

The problem with the above criteria is the fact that they are based more on responsibility type issues than on issues related to varying degrees of quality or technical merit. In essence, the criteria focused more on whether an offeror, based on his/her understanding of the tasks involved and the facilities required could perform the tests required in the SOW. Most of the criteria could be addressed with a "yes" or "no" response, i.e., either the offeror has the ability to fulfill the SOW or he does not. The meeting determined that there was little differentiation based on the accuracy, timeliness or quality of the tests required by the SOW.

After approximately one hour of honest and upfront dialogue by both parties, it was decided that a low cost technically acceptable approach for the acquisition was optimal. It is this researcher's opinion that a key in the decision was the contract specialist's understanding of the technical requirements. Without this understanding and the ability to ask relevant questions of the requiring activity, a "best value" strategy may have been pursued that could have resulted in the payment of a premium when a premium was not necessary.

3. Causes of Problems in the Identification of Evaluation Criteria

Reasons provided by interviewees for the causes of problems with evaluation criteria are: 1) the nature of the PWS, 2) a lack of time to plan and construct the criteria, 3) a lack of training for both technical and contracting personnel, 4) a lack of communication between Government and industry and, 5) a lack of feedback conducted after the evaluation process.

a. Nature of the Requirement

A vague PWS is a major reason offered for difficulties in establishing evaluation criteria. If the PWS was well defined it would be easy to understand what is important in the performance of the tasks since the desired outcome is known. In the case of a vague PWS, the desired outcome is not so certain. Due to the dynamic nature of many programs, the requiring activity may have little idea of the tasks that will be required two years in the future. Therefore, it is difficult to select evaluation criteria that will lead to the most advantageous procurement decision.

b. Lack of Time

Respondents to the survey who mentioned evaluation criteria as a problem generally believe that the requiring activity has the experience to select and tailor the correct evaluation criteria. However, the requiring activity does not always take the time to understand and really get at the heart of what is important in the performance of the contract and what criteria will really differentiate between offerors. Typically, evaluation criteria are selected at the requiring activity by the technical code requiring the services and forwarded to the contracting activity or department for approval. To save time in developing selection criteria, the requiring activity normally reviews the evaluation criteria for past and present contracts and utilizes the same criteria for the current requirement.

c. Training Deficiencies

The lack of appropriate training for both technical and contracting personnel is another reason why poor evaluation criteria are written. Technical personnel are not always familiar with the entire source selection process and may not understand why evaluation criteria are so crucial in the proposal evaluation phase. This is especially true in the area of engineering and technical services where the contract period of performance may extend up

to five years if all options are exercised. Due to this considerable length of time between evaluations, very few trained personnel from the previous selection process are available to relate the lessons learned from their previous experience.

Technical personnel are also not always familiar with the different source selection methods used to procure services and how these methods relate to the development of evaluation criteria. For example, technically acceptable low offeror source selections would emphasize responsibility criteria whereas "best value" source selections emphasize the qualitative criteria. Contracting personnel, familiar with different methods of source selection, generally lack the technical training required to understand what the requiring activity needs and therefore have difficulties in assisting the requiring activity develop the proper evaluation criteria.

Training in the selection and design of evaluation criteria is normally provided by the contracting organization in the form of written guidance. Most of the contracting activities visited have provided detailed instructions on the different source selection methods with generic examples of criteria for the requiring activity to utilize.

d. Communications among the Acquisition Planning Team

Communications between members of the acquisition planning team consisting of technical and contracts personnel is critical, but not always sound. Technical personnel require an understanding of acquisition procedures and contracting personnel require an understanding of the technical aspects of the PWS. To assist in the communication flow, centralized contracting activities like NRCCs sometimes employ Requiring Activity Contracting Assistants (RACAs) who assist the requiring activity in the construction of a procurement package for NRCC procurement. Activities with technical and contracting departments at one location, have the advantage of proximity however, from this researcher's experience both centralized and decentralized organizations are susceptible to

communication breakdowns between technical and acquisition personnel. This communication breakdown is normally attributed to the personal relationships between technical and acquisition personnel where both have preconceived notions about the other. For instance, some technical personnel may view contracting personnel as "clerks", always looking for the lowest price. Some contracting personnel may believe that technical personnel desire to circumvent the system whenever possible. The communication breakdown presents itself in the less than optimal design of evaluation criteria for "best value" evaluations.

e. Communications with Potential Offerors

Early communication with potential offerors is a method of receiving assistance in the preparation of evaluation criteria. Draft RFPs and presolicitation conferences are rarely used for engineering and technical services contracts because most procurement personnel believe that the process is not necessary and/or is too time consuming. The majority of personnel interviewed were of the opinion that draft RFPs and presolicitation conferences were worthwhile for a new procurement of complex services but not worth the effort for most engineering and technical services contracts even though "best value" evaluations were required. The following reasons support this opinion: 1) not all contractors attend presolicitation conferences or comment on draft RFPs, 2) regular RFPs elicit the same questions as draft RFPs and, 3) contractors already have a good understanding of engineering and technical service RFPs and the evaluation criteria utilized. When considering the years of experience most contractors have with Government contracts and the emphasis on the use standardized RFPs at most activities, the assertions for not using draft RFPs and presolicitation conferences for all "best value" procurements are plausible.

Proponents for the use of draft RFPs and presolicitation conferences for all "best value" procurements counter that not only do these tools assist in improving the quality of RFPs, but in the long run, improve the relationship between Government and industry. Regardless of the implications or the need, it was observed during this research that draft RFPs and presolicitation conferences were rarely used in "best value" procurements of engineering and technical services.

f. Lack of Feedback

One final cause attributed to improperly developed evaluation criteria, was a lack of feedback or lessons learned at the requiring activity after the evaluation. Specifically, very few interviewees admitted to seriously meeting after the evaluation to discuss the strong points or problems with the evaluation criteria. Many felt that a feedback session was a poor use of time since most of the members involved in the technical evaluation are tired of the process and very few of the personnel who participated in this evaluation will be present for the next one. The result, is an investment of time with limited learning for future procurements.

5. Summary

Identifying the proper evaluation criteria is crucial to the success of "best value" evaluations. However, according to the survey respondents, selecting the evaluation criteria which will differentiate between offerors and eventually lead to the most advantageous procurement decision is a difficult task which is not always successfully completed. Reasons for the problems in identifying adequate criteria occur due to the: 1) the nature of the PWS, 2) time for planning, 3) training for both contracting and technical personnel and 4) a failure in communication between contracting and technical personnel. In addition, draft RFPs and feedback sessions were noted as methods of assisting in the construction of criteria, both of which are rarely utilized.

C. PROBLEM #2: THE TECHNICAL EVALUATION

Technical evaluation personnel are not always educated concerning the importance of the technical evaluation to the "best value" source selection process.

1. The Importance of Technical Evaluations

The technical evaluation process is critical in determining which proposal offers the most advantageous procurement decision to the Government. An undisciplined technical evaluation can lead to the selection of an offeror who does not offer the "best value", or to the loss of a protest questioning the integrity of the source selection process. A strong technical evaluation is: 1) required to assist the SSA in deciding contract award, 2) necessary for discussions and debrief and, 3) a defense against protest. Problems with technical evaluations of proposals were mentioned by nearly half of the Government personnel interviewed. Many believe technical evaluations were a serious problem, "Our biggest problem with the greatest value method is the technical evaluators who want to quantify everything in numbers and not provide narrative". Others thought that problems with technical evaluations were relatively minor, "Correcting technical narrative is nothing more than a routine procedure similar to submitting correspondence through a supervisor prior to release".

2. Deficiencies Mentioned by Contracting and Technical Personnel Regarding the Technical Evaluation Process

Several comments collected during this research regarding the problems with the technical evaluation process are presented below.

Technical evaluators grade too high. They rarely give failing grades.

Being a member of a technical evaluation board is not looked upon highly by the senior engineers. The assignment to the technical panel needs to be recognized as an activity with value. Also, technical people see contracting personnel as clerks which does even less to help the process.

Technical evaluators are not well trained. They usually do it once in their career and do not want to take the responsibility. Contracting personnel can help by making the process (technical evaluation) as painless as possible.

Technical evaluation committees are made up of technicians and engineers who are not sensitive to the (source selection) process. Strong preferences exist at each activity.

Technical evaluations are bad- everywhere! The contracting officer needs to ensure the technical evaluators are trained to properly carry out their duties.

Heads of requiring activities blame contracting officers because they are told how to conduct technical evaluations and do not always believe they get the best possible contractor since they feel constrained by the rules.

Like all other activities I know of, we too have a problem with technical narrative.

There are normally lots of problems with the technical evaluation process. It is always an uphill battle. The technical evaluation panel is usually the 8th priority for any engineer. It is also very painful to get narrative comments from engineers; things that will live up to legal scrutiny that is.

The technical evaluation committee did not work well together as a team. It took six months longer than scheduled to award the contract because of this. The narrative had to go back several times for rewrite.

Technical evaluators see things in black and white. They like to use numbers when most of the differences in proposals cannot be equated to a numerical difference.

The most common complaint concerning the technical evaluation was the lack of technical narrative which is required to document a "best value" award decision. As alluded to in the comments above, it appears that technical evaluators prefer the use of numerical grades over narrative to document the evaluation. This researcher has seen four examples at two activities of contract awards delayed for up to six months primarily due to submissions of poor narratives by the technical evaluation committees (TEC). The common scenario has the TEC submitting an evaluation to the contracting officer who feels that it is inadequate to support an award. The evaluation is sent back to the TEC, redone, and submitted back to the contracting officer. This may occur three or four times before a contract award is made. In one example involving two offerors for a five year \$7 million services contract, the technical evaluation was sent back to the TEC five times between February and July 1988. In between were two meetings and several conversations

between the contract specialist and the requiring department. According to the contract specialist, the procurement did attain the most advantageous procurement decision however, it was more costly than it should have been in terms of time and resources.

In an extreme example, an offeror in a competition for engineering support services proposed to perform a PWS under a cost sharing arrangement with no fee in lieu of a CPFF contract. The contracting officer reasoned that the firm was trying to remain in business. This offeror proposed such a low price and favorable terms that on overall points the proposal was a clear winner. The second offeror, the incumbent, out scored the low priced offeror on technical points 52 to 43 although both were technically acceptable. The contracting officer admitted that he realized the requiring activity desired the incumbent offeror because of the higher technical score. Unfortunately, he could not, even after several meetings, extract the technical narrative necessary to make award to the incumbent offeror. As a result, the contracting officer had no justification but to award to the low priced technically acceptable offeror. One year into the contract, the requiring activity is not pleased with the contractor's performance and may elect not to exercise the next option and recompet the PWS. Although extreme, the above example illustrates what could happen without adequate narrative.

3. Systems to Prevent Problems with the Technical Evaluation

All of the activities interviewed have in place instructions and recommended procedures to train technical evaluators and facilitate the technical evaluation. NRCC, Philadelphia, has a four page instruction on the evaluation of offeror's technical proposals [Ref. 16]. Included with the instruction is a note from the Commanding Officer to the TEC which lists and describes common defects in technical evaluations. NRCC, Washington, D.C., in a package for all customer activities, not only includes instructions to the TEC, but also includes sample narratives justifying an evaluator's rating on an evaluation factor.

Naval Supply Center (NSC), Puget Sound, requires technical evaluators to pass a test on the source selection evaluation process prior to assignment to the TEC. Included in the test are 21 questions; some requiring explanations, while others are true and false. The test is presented in Appendix E.

In addition to written instructions, technical evaluators are further instructed verbally prior to commencement of the actual technical evaluation. This instruction is delivered by either the contracting officer, his/her representative or the chairperson of the TEC. For centralized contracting activities like NRCCs, technical evaluators are encouraged to utilize conference space at the contracting activity to conduct their technical evaluations. This improves the process by sequestering the technical evaluators away from their day to day job requirements while dedicating their complete attention to the evaluation of technical proposals. It also places the TEC where they can receive immediate feedback from the contracting officer and legal counsel.

4. Causes of Problems in Technical Evaluations

With all of these systems in place, why do problems continue to exist between the contracting and technical personnel regarding the technical evaluation? The major reason is due to a lack of management commitment to the process. Management, on both sides, does not always commit the resources considered necessary to ensure that an accurate and expeditious technical evaluation is completed. This can be attributed to a lack of personnel resources, time and an understanding of the importance of a disciplined evaluation. While discussing the importance of a disciplined evaluation, one contract specialist admitted that she prefers to have a protest on occasion, if only to have the management personnel at the technical activity understand the need for a disciplined technical evaluation process.

One of the most frequently mentioned constraints on the technical evaluation process was that the engineers employed on technical evaluations have full time jobs in

addition to the assignment on the technical panel. As a result, they can only dedicate random portions of their time to the evaluation. In addition, there exists a lack of incentive to become a member of the evaluation team. Normally, individuals are not evaluated nor do they receive performance awards based on their participation on a TEC. Therefore, there exists little motivation to expend great effort during the evaluation. The obvious motivation is in choosing the best contractor the requiring activity will have to work with for the next four or five years. Unfortunately, this is not always a superior motivating factor. In many instances, junior and new personnel are assigned to the TEC who have little understanding of the process.

Contracting organizations can assist in the technical evaluation in a variety of ways. First, contracting officers and specialists can become familiar with the PWS to the point where they understand what the differences in technical proposals mean to successful completion of the PWS. This would assist the technical evaluation panel in verbalizing the differences in the technical narrative. Second, the contracting organization can be available and accessible at all times to answer questions from the TEC. Finally, contracting organizations can offer innovative training and feedback mechanisms like the test at NSC Puget Sound to improve technical evaluation procedures.

5. Summary

Technical evaluations are an important element of "best value" source selections. Without a disciplined technical evaluation and adequate documentation, it is difficult if not impossible to make the most advantageous procurement decision. Both contracting and technical personnel have issues concerning the technical evaluation even though systems are in place to alleviate these issues. A lack of management commitment and understanding were the most frequently cited causes of problems with technical evaluations for engineering and technical services contracts.

D. PROBLEM #3: CONTRACTOR GAMING ON COST AND TECHNICAL PROPOSALS

1. Gaming Defined

The term "gaming" as used in this thesis, is defined as an innovation in cost or technical approach proposed by an offeror without adequate justification. These innovations are used to improve technical proposals and/or lower costs. Under gaming, the contractor has little or no intention of fulfilling the innovations proposed. Three reasons offered for gaming include: 1) the hope of becoming more competitive for award, 2) a feeling of distrust in a system advertised to focus on technical over cost, and 3) to protect the firm from the Government, which is "notorious for being tough on customers". This final view considers gaming as necessary in order to add a cushion to overhead costs to remain in business or generate an acceptable fee.

2. Responses From Interviews on the Gaming Problem

Several comments collected during this research which is indicative of the gaming problem are presented below:

We get it (gaming) all the time. Typically we know where the problems exist and look at those areas. Gaming is used most often in overhead and skill mix. You also see a lot of gaming in other direct costs and escalation rates when they are not normalized.

I do not believe we get the hours proposed in uncompensated overtime.

Some contractors come in with great costs. However, when investigated more closely you note the costs do not match the technical approach.

The problem we get with engineering support services is a contractor bidding the "A" team and you wind up getting the "C" team.

"Best value" allows the technical people to use judgment. Personnel experience is usually the most important factor since sample tasks can be gamed by a good technical writer.

Many contractors submit reliable cost estimates; others do not. Cost realism to control gaming costs us lots of extra work, time and effort because you cannot rely on some contractors' data.

Contractors game the Government on both technical and cost. You should be suspicious when costs submitted by offerors are far apart. Contractors will tell you one thing in the technical proposal and the costs do not match up.

There is a gaming problem with costs. Companies form joint ventures with other companies and nobody with resumes provided is assigned to the company being evaluated. Many companies setup new cost centers to bid on a proposal.

Lots of companies play games with cost data after the contract is awarded.

3. Where is Gaming Found?

According to information obtained during this research, gaming is found in both cost and technical proposals. In the cost area, frequently mentioned gamed costs include direct labor rates and overhead proposed by the prime and subcontractors. Escalation rates and other direct charges are also gamed when not normalized. Areas mentioned where technical gaming occurs included: 1) changes in the proposed labor skill mix, 2) bait and switch tactics where the key personnel proposed are not delivered, and 3) technical approaches defined in sample tasks which are unworkable from the cost standpoint. In fact, an example of contractor gaming was related to this researcher in every factor and subfactor used in the evaluation of engineering and technical services contracts.

After award, several interviewees mentioned task proposals from contractors with skill mixes which do not agree with the overall proposal skill mix awarded the contract. For instance, after award, a contractor may game by proposing a larger percentage of higher grade personnel than indicated in the original labor mix. The result is more overhead for the contractor and a higher rate of fund expenditure by the Government. This problem could be partly attributable to a poor estimate of the labor skill mix prepared by Government personnel or the inability of the COTR or ordering officer to negotiate a correct skill mix on the delivery or task order. For this reason, many consider cost overruns as an "inherent" problem in service contracting.

4. Examples of Contractor Gaming

The following are examples of suspected contractor gaming found in the cost evaluation sections of two post business clearance memorandums examined during this research. Both clearances are for engineering and technical services and propose one base year with four option years. The evaluated costs for one of the contracts is approximately \$16 million. The second contract has evaluated costs of approximately \$30 million.

In the first instance of suspected gaming, one of the contractors has submitted labor categories with a wide range of hourly rates. Shown below is a chart which reveals how the contractor distributed the hours within a given labor category among the various classifications that make up the labor category. The direct hourly rate is also shown for each classification and the percentage of effort for each classification is shown in the parenthesis. This example only includes two of the nine labor categories for illustration.

<u>Program Manager</u>				
E18	250	hrs (10%)		\$33.38
E8	2200	hrs (90%)	16.46	\$18.19
<u>Equipment Specialist</u>				
EL	250	hrs		\$12.51
EJ	250	hrs		10.82
ED	250	hrs		7.35
EC	8250	hrs (92%)	6.85	\$7.13

As demonstrated above, and in six of the seven remaining labor categories, the majority of all hours proposed are at the low end of the pay scale. This in itself is not an indication of contractor gaming. However, a comparison to the composite rates of other offerors and the Government's estimation based on previous efforts indicates that the rates were not accurate, i.e., the above rates are considerably lower. In addition, the comparison of hourly rates with the annual salaries displayed in another section of the proposal reflects wide disparities. "As an example, the gentleman proposed as the program manger has an annual salary of \$83, 512 whereas the annual salary in the cost proposal is \$37,835".

In another example in the same evaluation, one of the contractors proposed overhead rates well below the forecasted rate for the next three years. Whereas the forecasted rate averaged 72%, the proposed rate averaged 59%. The justification offered by the contractor for the discrepancy was that they were establishing a new cost center for the effort. They offered three reasons for the the new cost center including:

1. Type of work to be performed under the contract was different from existing contracts.
2. The current division's rates would include costs the company feels should not be allocated to the contract.
3. Existing division's rates are not competitive for this procurement.

DCAA felt that the above reasons did have merit, but were not sufficient for a number of technical and cost reasons. Since there was no cost information for the new proposed cost center, the Government utilized historic data and the original forecast to develop rates which turned out to be considerably higher than originally proposed by the contractor.

In the final example, evaluated direct labor costs proposed by a subcontractor were increased by over 80% as a result of a cost realism analysis. The reason for the increase in evaluated costs is the disparity between resume salaries presented in an appendix to the cost proposal and the hourly rates presented in the cost proposal. Once again the proposal average is well below other contractors' proposals and the Government cost estimate based on previous experience. Table 3 was taken from the cost evaluation:

TABLE 3

<u>Category</u>	<u>Resume Average</u>	<u>Proposal Average</u>
Sr. Lev. Engr. Mgr.	\$32.90	\$22.10
Sr. Lev. Engr. Desgn	34.01	17.04
Sr. Lev. Engr. Rel.	20.05	17.04
Jrny. Engr.	17.63	10.36
Engr. Desgn	25.13	16.92
Engr. Rel.	25.27	16.92
Computer Scientist	30.85	12.69

As evidenced in Table 3, a large disparity exists between the resume rates and the proposed rates. The evaluated cost was revised upward as a result.

5. Uncompensated Overtime

Uncompensated Overtime (UCOT) was mentioned as a gaming problem by a large number of Government and industry personnel. UCOT is defined in a DFARS change published in the Federal Register, Vol. 56, No. 172, page 43987, on September 5, 1991 as follows:

The hours worked in excess of the normal 8 hours per day, 40 hours per week by professional employees who are exempt from the Fair Labor Standards Act without additional compensation. Compensated personnel absences, such as holidays, vacations, and sick leave, shall be included in the normal work week for purposes of computing uncompensated overtime hours.

(The) "Uncompensated Overtime" rate is the rate which results from multiplying the hourly rate from a 40 hour work week by 40, and then dividing by the proposed hours per week. For example, 45 hours proposed on a 40-hour work week basis at \$20.00 would be converted to an uncompensated overtime rate of \$17.78 per hour. $(\$20 \times 40) \text{ divided by } 45 = \17.78 .

The DFARS change requires contracting officers to evaluate UCOT for technical risk in fulfilling contract requirements. Of particular note are:

1. Unrealistically low labor rates or other costs that may result in quality or service shortfalls; and
2. Unbalanced distribution of uncompensated overtime among skill levels and its use in key technical positions.

This policy of evaluating the technical risk of UCOT was tested in Comptroller General decision B-242020 of March 21, 1991 in the matter of Quantum Research, Inc. (QRI). A short summary of the decision follows:

QRI bid on a Government contract in which it indicated that its professional employees work 2600 hours per year or 50 hours per week. (One industry standard is 2080 hours annually, a 40 hour week.) The contracting agency downgraded QRI's proposal in part, to the use of such hours. GAO concluded that the downgrading was justified, because the 2600 hour work year created a risk regarding the stability of QRI's workforce. [Ref. 17:p. 8]

Industry's position on UCOT is that its use has placed undue emphasis on price rather than quality in the source selection process for engineering and technical services.

Industry believes the the Government should "level the playing field" by evaluating proposals for engineering and technical services on a "normalized" 40 hour per week basis regardless of the work week proposed or the acceptability of the accounting systems used by offerors. [Ref. 18:p. 3]

While not endorsing the use of UCOT, the Government believes that disallowing its use "would be detrimental to the integrity of the Government's acquisition system to prohibit, restrict, or discourage any form of price competition, including the technique of proposing uncompensated overtime." [Ref. 18:p. 3]

Interviews indicate that Government acquisition personnel recognize the problems with excessive UCOT and have instituted controls to evaluate the increased technical risk. In fact, all Government contracting organizations visited during this research claim to evaluate UCOT in light of increased technical risk. Several organizations review historic UCOT usage and do not permit increasing UCOT hours in new proposals. Even with these controls in place, this has not ended complaints by many Government and industry interviewees who claim they do not believe the Government is getting the UCOT hours proposed. Moreover, the extra time and resources dedicated to evaluating UCOT is not worth the effort.

One senior Navy acquisition official believes that the problem with UCOT has "run its course" in that the controls instituted are sufficient to protect both Government and industry. Additionally, he believes the use of excessive UCOT is now on the decline. Judging from the number of comments received during this research from both Government and industry personnel, it is this researcher's belief that continued study of UCOT should be pursued to determine the costs and benefits of the Government's policy.

6. Why Gaming is a Problem

Gaming is a problem for several reasons. First, gaming perturbrates the budgeting process and can affect readiness. Activities budgeting funds based on a yearly proposed amount negotiated for an engineering and technical services contract are required to curtail, cancel or obtain additional funds to continue services once the budgeted funds are exhausted. Secondly, gaming increases the risks of not selecting the most advantageous contractor. Unwittingly, a SSA may select a contractor based on a superior technical proposal that the contractor can never deliver. The third reason gaming is a problem in "best value" evaluations is the amount of time and effort expended by the SSEB in an effort to combat it. All areas of the cost and technical proposals require detailed screening and comparison to avoid gaming. Finally, gaming increases the perception that contractors are unethical. Several interviewees mentioned ethical concerns with gaming, yet caveat their comments with the statement that the overwhelming majority of contractors were honest with regard to their proposals.

7. Government Efforts to Combat Gaming

The Government has developed several methods to combat contractor gaming in order to protect itself and responsible offerors. The first is through use of the cost realism analysis. As previously defined, the cost realism analysis is a review of the cost portion of an offeror's proposal to determine if the costs are realistic for the technical effort proposed. It is a technique which should be used where adequate price competition exists to guard against pricing which is unrealistically low and which may lead to quality deficiencies, performance shortfalls and/or cost overruns. The cost realism analysis allows the contracting officer to gather and analyze the minimum data needed to justify an offeror's proposal price. The cost realism analysis is an indicator of the offeror's understanding of the RFP's technical requirements. Costs proposed by the contractor are compared to

historical data and the technical proposal and increased if they are found to be unrealistic prior to making a decision on award. Appendix F contains a matrix similar to one used at many activities as a starting point for the cost realism analysis of support services contracts. The matrix is a rough order of magnitude comparison of hours and costs between the existing contract and proposals received.

The cost realism analysis is an effective method used to reduce contractor gaming. However, the analysis is often protested as arbitrary and incorrect. The protests occur because much of the cost realism analysis is judgmental in nature. Generally speaking, the Comptroller General will deny the protests if the contracting officer's analysis of the proposed costs is sufficient to make a supportable judgment that the proposed costs are realistic. This rationale is termed the "informed judgment rule".

The cost realism analysis is not performed for time and materials and indefinite delivery/ indefinite quantity contracts with fixed hourly rates since these rates will not be adjusted upward. Therefore, engineering and technical services awarded under these contract types with fixed hourly labor rates are evaluated under a cost reasonableness standard only.

In addition to a cost realism analysis, another method of combatting contractor gaming is by establishing cost ceilings in areas where the Government suspects the use of unrealistic rates. Cost ceilings are negotiated to protect the Government. For instance, if a contractor proposes an overhead rate considered low by the contracting officer, a ceiling can be established requiring the contractor to remain below the overhead rate ceiling for a specified period of time. The problem with imposing ceilings is that a ceiling may defeat the purpose of awarding the contract to the most advantageous offeror in the first place.

This is because, with a ceiling in place, the contractor is more apt to concentrate on cost in lieu of quality. According to one interviewee, imposing ceilings for a certain contract may mean higher charges under a different contract.

Another method of mitigating gaming is through the use of normalization. Normalization involves measuring offerors against the same cost standard or baseline of circumstances where there are no logical differences in approach. This technique is typically applied in the cost areas identified as other direct costs and escalation rates. Normalization has the added benefit of reducing the time required for cost realism analysis since the elements normalized do not require additional investigation.

Rejecting a proposal as non-responsive if costs are unrealistic, or the overall proposal is unbalanced, is yet another method of combatting gaming. A typical statement, taken from a NAVAIR RFP to this effect reads:

The Government may reject an offer as non-responsive if it is materially unbalanced as to the prices for the basic requirement and the option quantities. An offer is unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

None of the contracting officers interviewed during onsite visits admitted to have eliminated offerors as non-responsive based on unrealistic costs. In fact, many expressed concerns that just such an action is prohibitive due to the possibility of protests.

8. Summary

According to interviewees, contractor gaming is a common practice when submitting proposals for engineering and technical services. Gaming in cost and technical areas can make an offeror more competitive for award. However, gaming can cause perturbations in the budgeting process and require a huge investment in time and resources by Government personnel to protect the integrity of the contracting system. The Government employs a variety of techniques to combat gaming. Most are time consuming but necessary to ensure that the integrity of a "best value" evaluation process is kept intact.

E. PROBLEM #4: CONTRACTOR DISTRUST

Contractors do not always trust "best value" evaluations. This claim is based on the perception that evaluation criteria communicated to the offerors through the RFP are not adequate to prepare a proposal fully responding to the Government's requirement and a belief that DoD contracting officers continue to make contract awards based on the low bid.

1. Comments Received Reflecting a Lack of Trust in "Best Value" Evaluations

We (Government) provide everything to contractors in spite of their belief that we award on the basis of low bid.

Industry is very competitive price wise. It is hard to say we do not like a contractor because his price is too low.

I received a lot of high order criticism when briefing contractors about "best value" last month. They wanted to know the evaluation criteria and weights we use to rate them.

Everyone needs to change their mindset before "best value" will happen. The current mindset is low bid.

DoD dollars are shrinking and customers still say they want top of the line. Contractors structure proposals in accordance with technical requirements because we say in the solicitation it is the most important factor. Later we award to the low cost offeror. No wonder contractors don't trust the system.

Industry feels we are paying lip service to the "best value" concept.

2. Systemic Areas for Distrust

Problem #4 was heard from 15 Government and industry personnel who were interviewed during this research. The views represented two areas inherent in "best value" evaluations that generate contractor distrust. Those areas are the communication of evaluation criteria and a lack of trust that the Government will award contracts on a "best value" basis in lieu of the low bid.

a. Evaluation Criteria

The Government policy of communicating evaluation criteria and their respective weights to offerors can cause a lack of trust between the Government and

contractors. This is because the evaluation criteria used in "best value" evaluations to assess the efficiency and effectiveness of an offeror's approach are never completely or objectively exposed to offerors in the RFP. As a result, contractors claim they do not know what they are being evaluated on and are required to decide which elements of the proposal or PWS requires the most emphasis. Upon not being selected for contract award, unsuccessful offerors attribute the cause to not understanding the evaluation criteria. This can lead to a distrust of the "best value" evaluation process.

In a low cost technically acceptable competition, an offeror is well aware that a contract award will be made solely on the low cost among those offerors rated technically acceptable. In a "best value" procurement, the contract award is based on a combination of factors. Even though section M of an RFP may state that the technical factor is considered to be more important than cost, this does not necessarily mean the high technical score always wins. This fact presents a difficult dilemma for contractors since a decision on where to place their emphasis, and how much, could make the difference between a winning and a losing proposal. "Best value" source selection forces offerors to ask themselves, "What should my proposed strategy be, high technical, low cost or something in between?"

At the factor level, the same contractor dilemma exists. One Government interviewee stated that sometimes the TEC looks for "buzzwords" while evaluating proposals and other times the TEC looks for concepts. He further stated that evaluation criteria are generally held "close to the chest" in that they are not communicated to offerors in the RFP. For example, under the "Technical" factor, the subfactor "Technical Approach" is communicated in the RFP as being the most important relative to all the other "Technical" subfactors. "Technical Approach" in this situation requires that the offeror outline how he would accomplish a series of tests as delineated in the PWS. The subfactor

does not inform the offeror of the the weights attached to each test nor does it inform the offeror of all the qualitative measures the Government will use to assess the effectiveness of the offeror's approach. For instance, will the Government provide a higher score to an offeror for accuracy above a certain process specification, and if so how much more? This type of information is not provided in the RFP and therefore, an offeror has to use judgment as to where to place emphasis. Upon not being selected for award, the contractor claims he did not understand the rules and thereafter loses faith in the process.

Should evaluation criteria and their weights be communicated to offerors in the RFP of "best value" procurements? On the one hand, communicating the evaluation criteria and their weights in the RFP may eliminate feelings of distrust by providing offerors with objective measures of what the Government considers most important in an offeror's proposal. However, all Government interviewees posed this question believe that providing all criteria with weights may also stifle contractor innovation and limit flexibility of Government selection authorities who may then be forced into a mathematical formulation to determine the most advantageous procurement decision.

b. "Best Value" Versus Low Cost

Contractors do not always believe DoD is awarding contracts based on the "best value" concept. Instead, many contractors believe that DoD continues to place too much emphasis on the low bid. This concern was raised by numerous Government and contractor personnel interviewed during research. In essence, these interviewees believe the Government does not always "stay the course" in making "best value" contract awards but rather continues to favor low cost over quality in the selection of contracts for engineering and technical services.

An example of this issue was discussed with the researcher by a senior Navy acquisition official who recalled a meeting with several contractors who were bidding on

Navy RFPs for engineering and technical services which advertised the payment of a premium for a superior technical proposal. Surprisingly, even with the offer of premiums, the contractors had decided upon a strategy of submitting the low bid in order to win the contracts. This strategy was based on the knowledge that defense cutbacks are limiting the funds available for support services contracts. The reasoning follows that with reduced funding available, even the advertisement of a premium will not stop the Government from awarding to the technically acceptable low offeror. Under this premise, the senior acquisition manager stated, "Contractors are reading the tea leaves of reduced funding for defense. We (Government) are operating like we still have plenty of money." The above example is a representation of the distrust many contractors harbor regarding "best value" evaluations in favor of low bid.

2. An Opposing View

Skeptical Government personnel believe that many contractors, who claim that they do not trust in "best value" source selections, are using "best value" as an excuse for poorly written proposals which did not win the contract award. This line of reasoning shifts the blame for non-award to the Government and in particular, on the "best value" source selection process. Several Government interviewees expressed the opinion that contractors are very pleased with the "best value" concept when it leads to a contract award for their company. However, when it does not lead to a contract award, they claim that the process is flawed.

3. Summary

Contractor distrust of the "best value" source selection process can lead to gaming and protest. Both cost the Government in terms of time and resources. While considering the complaint of contractor distrust, a Government acquisition manager summed up the issue as follows:

In some instances, all the words in the world will not make a contractor believe the Government is choosing the highest quality on a "best value" basis. Contractors have to see it in our actions. This is a long term type thing although industry is crying to see results now.

F. CHAPTER SUMMARY

Chapter IV provided a definition and analysis of the four most frequently mentioned problems identified during this research on the "best value" source selection process in the procurement of engineering and technical services. The chapter focused on: 1) identifying evaluation criteria which discriminate between offerors, 2) the technical evaluation process, 3) the contractor gaming of cost and technical proposals and 4) contractor distrust of the "best value" source selection process.

Chapter V will offer conclusions and recommendations from this thesis research.

V. CONCLUSIONS AND RECOMMENDATIONS

A. INTRODUCTION

This chapter will discuss conclusions and recommendations reached as a result of this research. In addition, the research questions presented in Chapter I are answered and recommendations for further research are presented.

B. CONCLUSIONS

1. The Expression "Best Value" is Defined in Terms of an Objective and a Process.

The expression "best value" is defined both in terms of an objective and a process.

As an objective, "best value" is defined as the most advantageous procurement decision. This decision can be based on low price, low overall cost or other factors. Other factors include technical approach, management capabilities and past performance.

As a process, "best value" is defined in terms of a source selection, where all factors including cost are considered prior to making a decision on contract award. If properly conducted, the "best value" process should lead to the most advantageous procurement decision. To achieve optimum success, "best value" as a process relies on proper definition of the requirement, thorough acquisition planning and a disciplined technical evaluation. This conclusion is discussed in Chapter II.

2. The "Best Value" Source Selection Process is Composed of Objective and Subjective Elements.

Rating systems are objective tools employed to assist the SSA in making an award decision. Frequently though, the SSA is required to employ subjective judgments in

deciding contract award. The need for subjective judgment in "best value" decisions can never be completely eliminated. This was discussed under definitions offered for "best value" in Chapter III.

3. There are no Impediments Stated in Acquisition Regulations Against Utilizing "Best Value" Source Selection in the Procurement of Engineering and Technical Services.

A review of policy guidance in Chapter II revealed no regulations prohibiting the employment of a "best value" procurement strategy. Current acquisition guidance is emphasizing "best value" as a method in which quality as well as price factors are considered in a contract award decision. "Best (greatest) value" is referenced in the FAR, in a recent change to the DFARS and was emphasized in a 22 March 1991 memo by the the Assistant Secretary of the Navy, the Honorable Gerald Cann. In addition, there are numerous agency and local instructions referring to the "best value" procurements. "Best value" procurements are not recommended for every item or service. In the area of engineering and technical services, "best value" procurements are reserved for requirements which dictate the complex integration of personnel for the accomplishment of complex PWSs.

4. There is Little Standardization in the Rating Systems Utilized in the Navy to Evaluate Contractor Proposals.

As discussed in Chapters II and III, Navy activities employ point systems, composite point systems with adjectival or color descriptors and strictly adjectival systems to evaluate contractor proposals under "best value" procurements. Although each system possesses advantages and disadvantages, each system is still able to obtain the most advantageous procurement decision. The common denominator in all rating systems with regard to "best value" lies in the judgment of the reasoned, and many times subjective decision of the SSA.

5. Procurement Personnel Know When to use "Best Value" Procurements for Engineering and Technical Services.

In accordance with a variety of guidance in the FAR, DFARS, ASN (RDA) "best value" policy memorandum and local policy instructions, Navy procurement personnel of all grades consistently demonstrated that they understood when to use a "best value" procurement strategy. This was evidenced in responses received to Question #3 in Chapter III.

6. Factors and Subfactors are Generally Standard in "Best Value" Procurements of Engineering and Technical Services. Evaluation Criteria Vary Depending on the Requirement.

As discussed in Question #4 of Chapter III, Technical, Management and Cost factors and related subfactors were generally standard in "best value" procurements for engineering and technical services throughout DoD. Evaluation criteria describing the factors are tailored to what is considered important in the requirement. Developing evaluation criteria which differentiate between offerors and lead to the most advantageous procurement decision is a major issue in the acquisition planning process.

7. Past Performance Data are Utilized by Most Activities, However a Standardized Format for Collection or Type of Data Does not Exist.

The overwhelming majority of activities utilize past performance data as an evaluation criterion in "best value" procurements for engineering and technical services. However, many activities use qualitative measures such as improvements made to past deficiencies, while other activities utilize only objective measures of past performance such as labor costs, the skill mix utilized and uncompensated overtime hours used on past contracts. Objective measures involve experience in years, systems or both. Qualitative methods evaluate the effectiveness of the experience.

There also exist differences in how the data are collected. Many activities have formalized systems where questionnaires are mailed to all Government activities, who in

the past, have utilized the the contractor for similar services. Other activities utilized less formal methods of telephone checks on past performance and the word of local technical personnel who have used the contractor in the past.

There is no Navy standard for determining what past performance data are to be collected, how they are to be collected and how they are to be utilized. Various methods were encountered during this research. At present, there exists no centralized contractor rating system in DoD for professional services, although NAVSEA has instituted a Contractor Performance Index pilot program that appears to have promise. This conclusion refers back to data collected from Question#5 in Chapter III.

8. Draft RFPs and Presolicitation Conferences are Rarely Utilized for "Best Value" Procurements of Engineering and Technical Services.

Draft RFPs and presolicitation conferences are not required for every "best value" procurement of engineering and technical services. However, when any reasonable doubt exists as to the clarity of the PWS or the RFP, and time permits, then it is prudent to request comments on a procurement through the use of a draft RFP or a presolicitation conference. The basis for this conclusion was discussed under Problem #1 in Chapter IV.

9. There is no Standard Guidance on how to Accomplish a Cost Realism Analysis for "Best Value" Procurements.

As discussed in Chapter II and under Question #8 of Chapter III, acquisition regulations contain several definitions for cost realism and define when it should be employed, but there exists no standard guidance on the mechanics of performing a cost realism analysis for professional services. Currently, contracting activities perform many of the same steps used during cost analysis when cost and pricing data are available. However, cost realism analysis is completed in a competitive environment and certified cost and pricing data are not available.

10. Although FAR 15.610 now Permits Awarding Without Discussions for "Best Value" Procurements, this Provision is Rarely Utilized.

This researcher only encountered one "best value" procurement of engineering and technical services awarded without discussions. The award was made to the technically superior, low priced offeror and other offerors were not susceptible or capable of being made susceptible for award. However, a supervisory contracting officer at a NRCC estimated that now, up to 25% of all contract awards made at that particular NRCC are awarded on a "best value" basis without discussions. The past policy of awarding without discussions only to the low priced offeror was changed by Section 802 of the 1991 National Defense Authorization Act and implemented in the FAR in April 1991. It is expected that the number of contract awards without discussions will continue to increase in the future as contracting personnel become familiar with the new regulation.

11. Honest and Upfront Dialogue Between Requiring and Procurement Organizations is a Major Element to Successful "Best Value" Procurements.

This conclusion was drawn repeatedly at every activity visited during the research. In order to achieve the most advantageous procurement decision through the use of "best value" procurements, a relationship of trust and respect must be fostered between the requiring and procurement organizations. A strong relationship improves "best value" procurements at every stage of the process from acquisition planning through contract award.

C. RECOMMENDATIONS

1. Contracting Activities Should Strive to Ensure That Their Customers Understand the Differences in Source Selection Methods Between "Best Value" Source Selection and Selecting the Low Cost Technically Acceptable Offeror.

Requiring organizations play a major role in the selection of an acquisition strategy. By understanding the differences in source selection methods, requiring

organizations who understand the technical requirements, are better equipped to make a recommendation on the acquisition strategy. Depending upon the complexity of the services required and the evaluation criteria, either procurement method may lead to the most advantageous procurement decision.

2. The Acquisition Planning Team and Technical Evaluation Committee Should Institute Feedback Mechanisms for the Improvement of Evaluation Criteria Used in "Best Value" Procurements.

This recommendation would assist both technical and procurement organizations in the planning and evaluation of future acquisitions. Ideally, after award of a "best value" procurement, the acquisition planning team and the technical evaluators should meet to debrief the procurement. Specific areas to be addressed would focus on the evaluation factors, criteria, TEC composition and any area where uncertainties arose during the evaluation. A problem with this recommendation is the investment of time required to conduct such a debriefing. However, if properly utilized, a debriefing of the procurement may save time and lead to more effective "best value" procurements in the future.

3. Contracting Officers and Negotiators Should be Provided Abstracts of Comptroller General and BCA Decisions Germane to "Best Value" Procurements.

NAVSUP should synopsize, or designate a field contracting activity to synopsize, Comptroller General and BCA decisions germane to "best value" procurements. These synopses should then be distributed to field contracting organizations for their information and education. This knowledge will help improve the "best value" source selection process. Synopsizing the decisions will ensure that the key issues in the cases are highlighted and save on the time required to read and comprehend a decision. Synopses should include only relevant facts of the cases without further interpretation.

4. Emphasize Management Dialogue Between Contracting and Technical Organizations.

This recommendation is basic to all contracting and technical organizations and is presently followed in varying degrees. However, based on this researcher's findings, more effort is required. The technical and contracting organizations must emphasize the use of honest dialogue at all stages of a "best value" procurement. The key to success is in ensuring that each organization understands the requirements of the other. This is especially true in the areas of acquisition planning and technical evaluations of proposals. In the area of technical evaluations, it was mentioned in this thesis that the narrative in the technical evaluations are consistently inadequate. Continued dialog between the two activities could help correct this problem.

5. The Customer Activity Must Dedicate Highly Experienced Personnel to the Technical Evaluation Committee or Risk Living with a Mediocre Service Contractor for Years in the Future.

One of the major deficiencies noted in the technical evaluation process was a lack of qualified personnel to conduct the technical evaluation. The management at the requiring activity should ensure that experienced personnel are assigned to the technical evaluation committees. In addition, technical evaluators should be relieved of all other duties and be evaluated on their performance as a member of the technical evaluation committee. The management at the requiring activities should also seek innovative methods of assigning persons to the technical evaluation committee such as a jury duty type arrangement for a fixed period of time.

Contracting organizations should recognize and be sensitive to the time and personnel constraints at the technical organizations. The contracting organization can assist by helping to streamline the acquisition process and be available for questions during the technical evaluation. Contracting organizations and technical organizations should also consider utilizing technical managers as the SSAs during procurements.

6. The Navy Should Consider Implementing a Standardized Rating System for use in Evaluating Contractor Proposals.

There exists a variety of rating systems used for "best value" procurements at contracting organizations throughout the Navy. Point systems, composite point systems with adjectival or color descriptors and strictly adjectival systems with no points are all currently used to rate contractor proposals for "best value" procurements. Standardizing a rating system throughout the Navy, may improve the efficiency and effectiveness of "best value" procurements in the long run because all concerned, Government and industry, will be familiar with the standard. On the other hand, a standard rating system may stifle innovative activities from experimenting with new systems which could be tailored for their needs.

7. The Navy Should Provide Standardized Guidance on how to Perform a Cost Realism Analysis for Engineering and Technical Services.

A regulation or instruction on how to perform cost realism analysis is not recommended. What is recommended is basic guidance similar to that available at NRCC San Diego, Long Beach Detachment which first defines cost realism and presents scenarios in line with past cost realism situations. The goal of this guidance should not be focused on "how to" but rather to sensitize the cost and technical evaluators to cost realism issues.

8. Key Personnel Salaries and Other Cost Information Should be Integrated into Technical Evaluations.

Salary and other cost information relevant to the technical proposal should be integrated into the technical evaluation to help ensure that the costs are realistic, protecting both the Government and responsible contractors from unrealistic rates. This information should be compared to the level of experience of the individuals and the technical approach proposed. Problems with maintaining the privacy of contractor personnel proposed could be averted by providing a salary range versus a fixed figure.

9. Contracting Organizations Should Streamline the "Best Value" Procurement Process by Emphasizing the use of Award Without Discussions.

Making an award without discussions permits the contracting activity to streamline the source selection process by eliminating the requirement for discussions and subsequent BAFOs. The key to awarding without discussions begins with good acquisition planning and continues through a disciplined evaluation process. Making an award without the requirement for discussions should be one of the foremost objectives of the contracting organization since it can significantly streamline the process. Thoughtful scenarios should be developed and discussed at each activity as to when awarding without discussions on a "best value" basis would be applicable.

10. Contracting Activities Should Institute Formalized Methods of Collecting and Evaluating Qualitative Past Performance Data for use in "Best Value" Procurements.

Contractors need to understand that the quality of past contract performance will be one of the evaluation criteria for all "best value" procurements. One method of disseminating this policy to contractors, is to implement formalized procedures to collect and evaluate past performance data. As mentioned in the conclusions, there exists a variety of collection methods and types of data utilized in the area of past performance evaluations. A standardized Navy policy is not recommended. However, formalized approaches stressing qualitative assessments of past performance appear to have the most promise in ensuring contractors understand the importance of quality contract performance.

D. ANSWERS TO RESEARCH QUESTIONS

1. Primary Research Question: What is the Most Efficient and Effective Method of Implementing a "Best Value" Procurement Strategy for Engineering and Technical Services Contracts?

There is no one specific method for implementing "best value" that is most efficient or effective. However, there are basic tenets to consider in every "best value"

procurement. "Best value" procurements are accomplished within a framework of: 1) properly identifying the requirement, 2) preparing clear and relevant evaluation criteria, 3) conducting a disciplined evaluation process and, 4) determining the most advantageous procurement decision to the Government. This framework requires continuous planning and evaluation at every stage to improve the efficiency and effectiveness of the process.

This research highlighted specific areas for contracting organizations to review prior to and during "best value" procurements which include the:

1. Training and communications between the members of the acquisition planning organization.
2. Need for the use of draft RFPs and presolicitation conferences to solicit industry input.
3. Rating systems used by the organization.
4. Training and motivation of the technical evaluation committee.
5. The cost realism analysis.
6. Debriefing or lessons learned process after contract award.

2. Subsidiary Question 1: What is "Best Value"?

For purposes of this research, "best value" was defined in terms of an objective and a process. As an objective, "best value" represents the most advantageous procurement decision available to the Government. This decision is based on low price, low overall cost or other factors. "Best value" defined as an objective has extremely broad applications. One can obtain the "best value" under any source selection method as long as the product or service meets the criteria of providing optimum satisfaction of mission needs.

"Best value" is also defined in terms of a source selection evaluation process where all relevant factors are taken under consideration prior to making an award decision. The end result of this process represents the most advantageous procurement decision available. In this context, procurement decisions are not based solely on price.

As a process, "best value" directly contrasts with technically acceptable low offeror source selections which make contract awards based on the low price among technically

acceptable offerors. "Best value" emphasizes other factors in addition to price and establishes different levels of technical merit from which to make the most advantageous procurement decision.

3. Subsidiary Question 2: Under What Circumstances is "Best Value" Employed?

"Best value" is generally reserved for the procurement of complex goods and services where alternate approaches for satisfying a requirement are available. This is due to the often times subjective nature of a "best value" procurement where evaluation factors and criteria are utilized to discriminate between solutions offered by competing proposals. As a result, requirements necessitating the use of performance specifications or complex services are typically considered for "best value" procurements. Conversely, products with detailed specifications and routine services are acquired based on low cost.

4. Subsidiary Question 3: What Source Selection Methods are Used for the "Best Value" Procurement of Engineering and Technical Services?

Two source selection methods are typically used for "best value" procurements of engineering and technical services. Those methods are formal source selection and streamlined or informal source selection. Both methods utilize evaluation factors to differentiate between offerors. Formal source selection is administratively expensive and is generally reserved for complex or higher cost requirements. The streamlined source selection method is more common in practice. Streamlining is normally accomplished by: 1) limiting the number of pages in a proposal, 2) reducing the number of evaluation factors and/or 3) reducing the number of personnel involved in proposal evaluation.

5. Subsidiary Question 4: What Factors and Subfactors are Utilized in "Best Value" Procurements for Engineering and Technical Services?

From a sample taken during this research, evaluation factors and subfactors used in "best value" evaluations are fairly standard in title and content. The factors used include technical, management and cost. Technical and cost were factors in all "best value" procurements for engineering and technical services. Management was primarily listed as a subfactor of technical. Subfactors under the above factors include personnel experience, technical approach, management plan, manpower utilization matrix, sample tasks and past performance.

6. Subsidiary Question 5: What are the Problems or Impediments to Implementing "Best Value" Source Selection for Engineering and Technical Services?

Several problems and impediments were identified during the course of this research. The majority of the problems and impediments were in the areas of acquisition planning and proposal evaluation. Specific problems mentioned most often during interviews included; 1) the identification of evaluation criteria which will differentiate between offerors and lead to the most advantageous procurement decision, 2) the technical evaluation process, 3) contractor gaming of cost and technical proposals and, 4) contractor distrust of the "best value" procurements which advertise technical ability over cost. Impediments to correcting the problems pervasively centered on a lack of time, training, communications and resources necessary to plan, document and conduct a "best value" procurement.

7. Subsidiary Question 6: How do Activities Quantify Paying a Premium on "Best Value" Procurements?

All activities questioned emphasized reasoned judgment prior to extending a premium to a contractor for a superior technical proposal. However, most activities also conduct a cost benefit analysis in which additional technical points are equated to additional dollars. The cost benefit analysis is carried out by the technical evaluators, who at certain

activities, are provided the cost differentials. Other activities do not supply the technical evaluators with a cost differential. In these cases technical evaluators are provided with the differences in technical proposals and are asked to justify the differences without the dollar differential at hand.

E. RECOMMENDATIONS FOR FURTHER RESEARCH

1. Conduct a cost benefit analysis of uncompensated overtime use for engineering and technical services at one activity.

2. Investigate the most efficient and effective method to collect and evaluate past performance data for use in the source selection of professional services contracts.

3. Determine the elements for and construct a "guide" on the conduct of a cost realism analysis for professional services procurement at NAVSUP field activities.

4. Evaluate the technical proposal evaluation process for engineering and technical services at two field activities. Compare and contrast the results.

5. Study the Acquisition Review Program (ARP) at NWC China Lake, California and make recommendations for improvement and export to other activities.

6. Define the applicability of making contract awards without discussions in "best value" procurements. Present a background and scenarios where awarding without discussions may streamline the "best value" procurement process.

7. Investigate rating systems used in "best value" procurements and decide whether the Navy should implement a standardized rating system.

APPENDIX A

**THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D.C. 20350-1000**

MAR 22 1991

MEMORANDUM FOR: PROGRAM EXECUTIVE OFFICERS
DIRECT REPORTING PROGRAM MANAGERS
COMMANDERS OF SYSTEMS COMMANDS
DEPUTY CHIEF OF STAFF FOR INSTALLATIONS AND
LOGISTICS, HEADQUARTERS, U.S. MARINE CORPS
COMMANDING GENERAL, MARINE CORPS
RESEARCH, DEVELOPMENT AND ACQUISITION
COMMAND
COMMANDER, MILITARY SEALIFT COMMAND
COMMANDING OFFICER, AUTOMATIC DATA
PROCESSING SELECTION OFFICE
COMMANDING OFFICER, NAVAL COMMERCIAL
COMMUNICATIONS CENTER

Subj: "BEST VALUE" CONTRACTING POLICY (DCN 18210021/APIA-01-0001)

The purpose of this memorandum is to reemphasize the Navy's commitment to competitively select sources on the basis of the "best value" to the Government. In determining factors to be evaluated other than price, the nature of the supplies or services to be acquired must be considered.

Factors impacting "best value" decisions include technical competence, proven past performance, management capability, life cycle costs and quality. Evaluation of these factors should be structured to ensure that they are given due consideration in determining the overall benefit associated with the offered price.

"Best value" evaluations should be employed wherever possible and especially in weapons system, federal information processing (FIP) and professional and technical service support acquisitions. Requirements which dictate complex integration of people, equipment, hardware, innovation and software should also be evaluated on a "best value" basis. However, when non-complex, routine requirements are being procured and the product to be delivered is clearly defined at the outset of the procurement, it may be appropriate to award to the lowest priced, technically acceptable offeror.

Please circulate this memorandum to the appropriate personnel as it reemphasizes the Navy's commitment to "best value" when acquiring systems, products and services for the Fleet.

Gerald A. Cann

APPENDIX B

LIST OF INTERVIEWEES

The following is a list of persons who directly provided information for this research.

Interviews consisted of both telephone conversations and personal visits.

- 1) Ayars, J., Deputy Director of Contracts, Naval Supply Center, Puget Sound, WA, July 30, 1991.
- 2) Barker, W., Director Information Resources Contracts Division, Naval Regional Contracting Center, Washington, DC, September 11, 1991.
- 3) Bugby, D., Director of Business Government Policy, Professional Services Council, Washington, DC, August 1, 1991.
- 4) Camph, B., Manager of Contracts, SRI International, Menlo Park, CA, various, September 1991.
- 5) Canales, M., Contracting Officer, PMA Services, Naval Air Systems Command, Washington, DC, September 11, 1991.
- 6) Canfield, T., Capt., SC, USN, Director of Command Inspection Division, Navy Inspector General Staff, Washington, DC, July 28, 1991.
- 7) Carberry, V. S., Executive Director of Contracts Management, Naval Air Systems Command, Washington, DC, September 11, 1991.
- 8) Celloto, D., Deputy Counsel, Naval Regional Contracting Center, Philadelphia, PA, August 2, 1991.
- 9) Cengia, R., Supervisory Contracting Officer, Naval Regional Contracting Center, San Diego Detachment, Long Beach, CA, various, July - November, 1991.
- 10) Cook, O., Contracting Officer, CTA Systems Support Contract, China Lake, CA, August 13, 1991.
- 11) Finnigan, M., Manager, Services Contract Division, Naval Aviation Center, Indianapolis, IN, August 7, 1991.
- 12) Ford, F., Office of Assistant Secretary of the Navy, Washington, DC, various, August - October, 1991.
- 13) Hallum, L., Contract Cost/Price Analyst, Directorate of Contracting, Fort Ord, Monterey, CA, various, July - August, 1991.

- 14) Hart, N., Cdr., SC, USN, Director of Contracts, Naval Supply Center, Puget Sound, WA, July 27, 1991.
- 15) Hauf, B., Capt., USAF, Air Force Logistics Management Center, Gunter Air Force Base, AL, September 25, 1991.
- 16) Hauenstein, W., Radm., SC, USN, Competition Advocate of the Navy, Office of the Assistance Secretary of the Navy, Washington, DC., August 1, 1991.
- 17) John, W., Division Director, Missile and Systems Contracts Division, Naval Air Systems Command, Washington, DC, September 11, 1991.
- 18) Kaczmarek, T., Senior Contract Negotiator, Naval Regional Contracting Center, Philadelphia, PA, July 18, 1991.
- 19) Kalapos, M., Capt., SC, USN, Director of Contracts, Naval Training Systems Center, Orlando, FL, July 27, 1991.
- 20) Kaufman, S., Deputy Associate Administrator, Office of Federal Procurement Policy, Washington, DC, August 8, 1991.
- 21) Kolis, T., Procurement Analyst, National Aeronautics and Space Administration, Ames, CA, July 10, 1991.
- 22) LaFollette, C., Chief, Management Branch for Engineering and Technical Services, National Aeronautics and Space Administration, Ames, CA, various, August - September, 1991.
- 23) Lavering, F., Program Manager, ADP and Telecommunications Support Systems, Boeing Computer Services, China Lake, CA, August 13, 1991.
- 24) Manson, B., Deputy Director of Contracts, Naval Weapons Center, China Lake, CA, various, August - November, 1991.
- 25) McCabe, T., Chief, Contract Division, Defense Nuclear Agency, Alexandria, VA, August 28, 1991.
- 26) McCarthy, P., Lcdr, SC, USN, Contracts Section Head, Naval Sea Systems Command, Washington, DC, various, July - October 1991.
- 27) Monckton, W., Contract Specialist, Naval Weapons Center, China Lake, CA, August 14, 1991.
- 28) Moris, M., Chief of Contracting Section, Department of the Army Central Contracting Office, Atlanta, GA, July 12, 1991.
- 29) Murphy, B., Head, Radar and Fire Control Branch, Contracts Directorate, Naval Sea Systems Command, Washington, DC, July 17, 1991.
- 30) Norman, R. Vice President of Contracts and Administration, ROH Inc., Alexandria, VA, July 20, 1991.

- 31) Passar, A., Maj. USA, Contract Law Attorney, Department of the Army Central Contracting Office, Atlanta, GA, July 30, 1991.
- 32) Patterson, J., Contract Specialist, Naval Weapons Center, China Lake, CA, August, 12, 1991.
- 33) Paul, D., Contract Specialist, Naval Weapons Center, China Lake, CA, August 15 1991.
- 34) Penn, A., COTR, Boeing ADP Support Services Contract, Naval Weapons Center, China Lake, CA, August 13, 1991.
- 35) Reese, B., Director of Contracts, Techmatics Corporation, Alexandria, VA, July 27, 1991.
- 36) Richter, R., Assistant for Engineering Programs, Naval Ship Weapon Systems Engineering Station, Port Hueneme, CA, July 17, 1991.
- 37) Rainwater, S., Ordering Officer, Boeing ADP Support Services Contract, Naval Weapons Center, China Lake, CA, August 14-15, 1991.
- 38) Riggs, R., Associate Department Head, Engineering Department, Naval Weapons Center, China Lake, CA, August 14, 1991.
- 39) Rodgers, D. Supervisory Contracting Officer, Naval Regional Contracting Center, San Diego Detachment, Long Beach, CA, June 25, 1991.
- 40) Rumberger, R., Branch Head, Systems Control Branch, Naval Air Systems Command, Washington, DC, September 12, 1991.
- 41) Ryan, J. Cdr., SC, USN, Deputy Division Director, Naval Air Systems Command, Washington, DC., various, August - November, 1991.
- 42) Siminkski, M., Chief of Contract Operations Directorate, Vandenburg Air Force Base, CA, August 29, 1991.
- 43) Sueur, R., Cdr., SC, USN, Commanding Officer, Naval Regional Contracting Center, San Diego Detachment, Long Beach, CA, June 24, 1991.
- 44) Safford, D., Legal Counsel, Naval Regional Contracting Center, San Diego Detachment, Long Beach, CA, June 25, 1991.
- 45) Swizewski, J., Supervisory Contract Negotiator, Naval Regional Contracting Center, Philadelphia, PA, August 2, 1991.
- 46) Tarves, A., Supervisory Contract Negotiator, Naval Regional Contracting Center, Philadelphia, PA, July 30, 1991.
- 47) Taylor, S., Supervisory Contracting Officer, Naval Regional Contracting Center, Washington, DC, September 11, 1991.

- 48) Trunk, M., Procurement Policy Analyst, Naval Supply Systems Command, Washington, DC, various, July - October 1991.
- 49) Utendorff, D., Technical Assistant to the Deputy Chief of Staff for Contracting, Aeronautical Systems Division, Wright Patterson Air Force Base, Dayton, OH, August 28, 1991.
- 50) Vollmer, J., Project Director, EGG Inc., Alexandria, VA, July 17, 1991.
- 51) Webb, D., Contracting Officer, Naval Regional Contracting Center, San Diego Detachment, Long Beach, CA, June 25, 1991.
- 52) Wice, M., Ordering Officer, COMARCO Support Services Contract, Naval Weapons Center, China Lake, CA, August 11, 1991.
- 53) Williams, C., Deputy Director, Onsite Field Support Office, Naval Supply Systems Command, Washington, DC, July 22, 1991.

APPENDIX C

SURVEY QUESTIONNAIRE

Government:

1. How would you define "best (greatest) value?"
2. Does your activity use numerical scoring, adjective grades or colors to evaluate proposals to achieve "best value"? Why is that rating system used?
3. How do you decide a whether certain requirement requires the usage of the "best value" method?
4. What are the factors and subfactors your activity uses for "best value" procurements of engineering and technical services contracts?
5. How is past performance data collected and utilized in "best value" source selection for engineering and technical services contracts?
6. What are some of the problems or issues your activity faces with "best value" procurements of engineering and technical services contracts?
7. How does your activity determine the need to pay a premium for a technically superior proposal over a proposal which is technically acceptable, yet lower priced?
8. How does your activity conduct cost realism analysis for engineering and technical services contracts?

Contractor:

1. How would you define "best (greatest) value?"
2. How do you feel about the "best value" concept utilized by the Government in awarding contracts?
3. Does your firm have any problems with "best value" solicitations let by DoD for engineering and technical services? If so, what are they?
4. How do you feel about awarding contracts on a "best value" basis without discussions?
5. In your view, does the Government do an adequate job of cost realism analysis?

APPENDIX D

CONTRACTOR EVALUATION QUESTIONNAIRE

Date: _____

Contract #: _____ CONTRACTOR: _____

Option period being evaluated: _____

COTR Name: _____ Code: _____ Phone: _____

The Rating System is as Follows:

O - Outstanding

B - Better

A - Acceptable

M - Marginal

U - Unacceptable

Technical Approach

Did the contractor perform as required?

O B A M U

How well did the contractor continually improve his approach in solving technical problems?

O B A M U

Schedule

How well did the contractor make delivery of CDRL items in accordance with the terms and conditions?

Was rework required?

O B A M U

How well did the contractor demonstrate organizational methods to recognize possible delays and take corrective actions immediately?

O B A M U

How well did the contractor keep the Government adequately informed of schedule issues.

O B A M U

Management Approach

How well did the contractor maintain an open line of communication so that the requiring code was apprised of technical, cost and schedule issues?

O B A M U

How well did the contractor show flexibility and ingenuity in problem solving?

O B A M U

How well did the contractor provide clear, concise and informative written reports?

O B A M U

Cost

How well did the contractor provide/recommend a reasonable labor mix?

O B A M U

Personnel

Did the contractor have a stable work force?

O B A M U

Did the contractor provide a quality work force?

O B A M U

Endorsement

Based on the experience you have had with this contractor, would you elect to have them perform a contract for you again?

Please indicate along the scale your overall rating of the contractor's performance under this contract?

O B A M U

General Information

What was the contractor's greatest strength?

What was the contractor's greatest weakness?

=====

PR# _____ **will be placed under the new option year**

Estimated Hours _____

Estimated Price _____

APPENDIX E

NSC PUGET SOUND TECHNICAL EVALUATOR TEST

1. Under what circumstances should Source Selection Procedures be used?
2. Who develops the evaluation plan, and once developed, what is the next step?
3. The plan must include six major factors. What are they, and discuss/describe each one.
4. What are the duties of the Evaluation Committee Chairperson?
5. Who should be on the Evaluation Committee, and what are their functions?
6. How are the Source Selection plan criteria used by the PCO in the solicitation?
7. Evaluation criteria must be in concert with the statement of work. The criteria must also possess certain other characteristics. Indicate whether the following statements are true or false.
 - a. Criteria should overlap each other as little as possible.
 - b. You should develop as many criteria as possible so that scoring and ranking can be broken down as much as possible.
 - c. You should include criteria that all offerors are likely to meet so that only formulas or definitive rules can be used to evaluate, and to ensure that all offerors will receive some points.
 - d. Criteria should not be so narrowly defined that evaluation of responses becomes a yes/no decision.
 - e. Criteria should be worded as generally as possible to allow various interpretations of the evaluation plan in order that varied responses will be received from offerors.
 - f. Criteria should challenge the offeror to describe a technical approach in sufficient detail so that meaningful differences among offerors will be brought out through the evaluation process.
8. The plan may include mandatory or "non-negotiable" standards. What are some of the dangers of using these, and how must they be used?
9. In the evaluation process, may offerors be compared to each other? Discuss your answer.

10. The most commonly used approach to ranking/rating proposals is the narrative/numerical methodology. Describe the process.

11. In this example, the Source Selection Plan contains a technical factor of Experience for evaluation. Can only the technical proposal submitted be evaluated and considered? Can the experience indicated be verified/researched?

Why/Why not?

12. Who has the ultimate authority to approve the Source Selection Plan and determine which offeror will be awarded the contract?

13. True or False: The offeror receiving the highest overall (cost and technical) evaluated score automatically is selected for award and additional evaluation or justification is not required.

Why/why not?

14. Explain what is meant by offerors being technically equivalent.

15. When two or more offerors receive essentially the same technical scores, are they always technically equivalent?

Why/Why not?

16. What must be done if individual committee members' technical scores of an offeror's proposal vary widely on one or more technical factors? How will the Committee's summary and final recommendation be affected?

17. The Source Selection Plan will establish technical factors to be evaluated and their weights. Should the plan and/or the committee subdivide by weights each technical factor?

Why/Why not?

18. The plan will contain a technical evaluation rating standard (usually numeric) defining the ratings 10 through 0. How will the rating standard be used during the technical evaluation? Also, must the numeric rating assigned be supported by written documentation? Explain your answer.

19. Assume the technical evaluation will be on four technical factors to be evaluated and the offeror being evaluated scores a perfect score in three of the four factors but scores a one or zero on the fourth. As a result, the overall numeric technical score indicates a satisfactory rating. How should the committee's evaluation and final recommendation address this situation?

20. Explain the relationship between the evaluation criteria set forth in the Source Selection Plan and the technical proposal submission requirement set forth in the solicitation.

21. At the conclusion of technical evaluations, what documents must be submitted to the PCO by the Committee Chairman.

APPENDIX F

COST COMPARISON MATRIX

<u>EXISTING CONTRACT DATA</u>				<u>SUPPORT CONTRACTS</u>				<u>OFFERS RECEIVED UNDER RFP</u>				
<u>ORIGINAL CONTRACT *</u>				<u>DELIVERED CONTRACT**</u>								
<u>Description</u>	<u>No of Hours</u>	<u>Contract Value</u>	<u>Average Hr. Rate</u>	<u>No of Hours</u>	<u>Contract Value</u>	<u>Average Hr Rate</u>	<u>No of Hours***</u>	<u>Co "A"</u>	<u>Co "B"</u>	<u>Co "C"</u>	<u>Co "D"</u>	<u>Co "E"</u>
Direct Labor												
Loaded Labor**												

- * Should include any increased scope officially added to contract
- ** Should include all loadings and profit. If significant material is included in contract it is recommended data be developed with and without material cost.
- *** If the offerors are providing different amounts of hours the different amounts should be arrayed.

NOTE: Arranging data as illustrated above, provides a graphic presentation of what was previously contracted for, what in effect was delivered, and what each offeror is proposing. Competition may well provide lower costs/prices however extreme differences from previous experience should be carefully analyzed and the differences understood. In most cases the average hourly rates from the offeror will group together with expected differences to be reflected in their "loadings."

LIST OF REFERENCES

1. Report of the Defense Science Board, *Use of Commercial Components in Military Equipment*, Washington, DC, June, 1989.
2. Naval Supply Systems Command, Instruction 4200.79A, *Competitive Source Evaluation and Selection for Other Than Major Defense System Acquisitions*, March 23, 1988.
3. Defense Logistics Agency, Handbook 4105.3, *Buying Best Value Through Source Selection*, Alexandria, VA, July 1990.
4. Defense Personnel Support Center, Handbook 4105.8, *Handbook for Source Selection*, Philadelphia, PA, April 1990.
5. Defense Analysis and Studies Office, *"Best Value" Evaluation Process*, Falls Church, VA, December 15, 1989.
6. Air Force Logistics Management Center, *Streamlined Source Selection Training Guide*, Gunter Air Force Base, AL, December 1990.
7. NASA, Handbook 5103.6B, *Streamlined Acquisition Handbook*, February 16, 1990.
8. *Federal Acquisition Regulation*, 1984.
9. Assistant Secretary of the Navy, (Research, Development and Acquisition), Memorandum, Subject: "Best Value" Contracting Policy, March 22, 1991.
10. Comptroller General Decision B-238953.4, Flight International Group, Inc., September 28, 1990.
11. *Defense Federal Acquisition Regulation Supplement*, 1984.
12. Department of the Army, U.S. Army Material Command, *The Source Selection Process*, AMC-P715-3, January 8, 1987.
13. Telephone Interview between Thomas McCabe, Chief, Contract Division, Defense Nuclear Agency, Alexandria, VA, and the author, August 28, 1991.
14. Naval Sea Systems Command, Instruction 4335, Contractor Performance Index (CPI), June 1991.
15. Naval Supply Systems Command, *Final Report of Naval Supply Systems Command Process Action Team on Greatest Value Source Selection*, March 6, 1991.

16. Naval Regional Contracting Center, Philadelphia, Instruction 4255, *Evaluation of Offeror's Technical Proposals*, April 20, 1990.
17. Federal Acquisition Report, "GAO Looks at Uncompensated Overtime and the 50-Hour Work Week", July 1991.
18. DoD Advisory Committee on Uncompensated Overtime, *Report on Uncompensated Overtime*, December 1989.

BIBLIOGRAPHY

1. Gilleece, Mary Anne, "Lowest Bid—The "Best Value"?", *The Privatization Review*, p. 44-48, Spring 1990.
2. MacFarland, Margo, "Best-Value Buying Urged in Cheney Memo", *Washington Technology*, February 22, 1990.
3. Marsh, Kenneth, D. LT, SC, USN, *An Analysis of Source Selection Procedures for Engineering Support Services Contracts*, Master's Thesis, Naval Postgraduate School, Monterey, CA, December, 1989.
4. Terino, John, "Buy-Ins Are Out. Best-Value Contracting Is In", *National Defense*, September 1991.
5. Air Force Logistics Command, Change 6; Part 15.6, *Federal Acquisition Regulation Supplement*, October 31, 1989.

DISTRIBUTION LIST

	Copies
1. Defense Technical Information Center Cameron Station Alexandria, VA 22304-6145	2
2. Defense Logistics Studies Information Exchange U.S. Army Logistics Management Center Fort Lee, VA 23801	1
3. Library, Code 52 Naval Postgraduate School Monterey, CA 93943	2
4. Associate Professor David V. Lamm, Code AS/LT Department of Administrative Sciences Naval Postgraduate School Monterey, CA 93943-5000	3
5. CDR John Ryan, Air 216A Naval Air Systems Command Naval Air Systems Command Headquarters Washington, DC 20361	1
6. Mr. Blaine Manson, Code 25 B Naval Weapons Center China Lake China Lake CA 93555-6001	1
7. Department of the Navy Naval Sea Systems Command Attn: LCDR Pat McCarthy, SEA 0285 Washington, DC 20362-5101	1
8. Naval Supply Systems Command Attn: Code 02XT, Ms. Martha Trunk Washington, DC 20376-5000	1
9. Officer in Charge Naval Regional Contracting Center Long Beach Detachment Attn: Mr. Bob Cengia Long Beach, CA 90822-5095	1

- | | |
|---|---|
| 10. CDR Rodney F. Matsushima AS/MY
Department of Administrative Sciences
Naval Postgraduate School
Monterey, CA 93943-5000 | 1 |
| 11. LT Herb Bym
Naval Air Systems Command
Naval Air Systems Command Headquarters
Washington, DC 20361 | 1 |